MASSACHUSETTS PLOUGHMAN

AND NEW ENGLAND JOURNAL OF AGRICULTURE

DEVOTED TO AGRICULTURE, HORTICULTURE, THE FARM AND THE GARDEN. THE FIRESIDE, RURAL LIFE, LITERATURE, USEFUL ARTS, NEWS, &c.

VOL. LVII. - NO. 50. BOSTON, MASS., SATURDAY, SEPTEMBER 0, 1898. WHOLE NO. 2959

MASSACHUSETTS PLOUGHMAN AND NEW ENGLAND JOURNAL OF AGRICULTURE

Official Organ of the N. E. Agricultural Society

LINUS DARLING, PROPRIETOR.

ISSUED WEEKLY AT

10 AND 12 FEDERAL ST., BOSTON, MASS.

NEW YORK OFFICE, 205 TEMPLE COURT, NEW YORK CITY.

TERMS:

$2.00 per annum, in advance. $2.50 if not paid in advance. Postage free. Single copies 5 cents.

No paper discontinued, except at the option of the proprietor until all arrearages are paid.

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AGRICULTURAL.

IF extra fall and spring pasture is needed sow rye now.

IF flies worry the stock half to death darken the stables and spray on a little kerosene and soap suds mixture.

THE fattening pigs should have plenty of corn on the ear, or corn meal and skim milk up to one-half the ration per week.

THE fall nursery catalogues are now on hand. Trees might just as well be ordered now and set next month as in the spring.

SWEET clover may perhaps take the place of crimson clover where the latter does not always stand the trying weather of our winters and springs.

AN Anjou pear eleven and one-half inches in circumference, four and one-half inches deep, and weighing fifteen ounces was exhibited by John Brody of Fitchburg.

A GOOD ration for calves to be fed with skim milk is one part linseed meal, two parts bran, and two parts whole oats. Feed the grain dry with early cut clover hay.

THE great mistake the average farmer is making in the care of live stock, looking at it from a plain profit and loss standpoint, is not over-feeding but under-feeding.—Prof. H. W. Mumford.

THE old canes in the blackberry and raspberry patch can be removed at any time, and the old sprouts should be thinned out to give the new ones room to grow and ripen a crop next year.

THIS is the best growing weather for celery. Hoe it often and begin to bank when it gets large enough. Early celery may be conveniently bleached between boards which should be kept on edge by pegs driven into the ground.

YOUNG trees need a visit from their owner about this time with pruning shears in hand. The useless sprouts should be pulled or cut off, caterpillar and other swarms removed, interfering branches pruned off. If peaches seem to be making a rank late growth they should be headed in to prevent winter kill.

BEFORE there is much frost the onions ought to be harvested and stored in a cool, airy place, likewise the winter squashes where they will keep warm enough and dry. The tender house plants should be taken up in time, and the bulbs, such as cannas, dahlias and gladioli should be taken up and stored in the root cellar. When the herbs and perennial shrubs are through flowering they may be divided at any time, if desired. Every farm garden should have a collection of this class of plants. Their care is very simple and they give much satisfaction.

Marketing Pears.

I get my best prices from a full barrel of hard green fruit. I make more grades than Mr. Bewan does. I always take out a fancy grade, and I consider this fancy grade of mine away beyond No. 1. There is no place in the barrel suitable for it. If it is left with he pile we of course wou d put it on the face, and it does not fairly represent the contents of the barrel, so we put it in a barrel by itself. Then I make about two grades—a No. 1 according to the sizes and a No. 2, and always keep out the soft fruit and put it in a barrel by itself. This will make five or six grades of almost any kind of pears that I handle. As to the time. Last winter I had a considerable quantity of Bartlett pears kept in Montreal in cold storage until about the first of April, and my commission men were so disappointed at the result that they paid the cold storage themselves. I think there is no time so good for selling pears as during the season of pears.

G. E. FISHER.

Burlington, Ontario.

Creamery Sharks.

It seems as though the same class of men who at one time were engaged in the sale of lightning rods had found a better paying kind of swindling, and one that can be worked on a larger scale, in the organizing of stock companies for the purpose of erecting, outfitting and selling to such companies public creamery plants at never less than double egitimate prices and many times at much higher rates.

A few years ago this class of swindlers plied their vocation for a time unmolested, and at that time their profits were even better than now. But after awhile the agricu tural and dairy papers got after them, roasting them pretty thoroughly under the title of "creamery sharks." This went on till one concern by which the "creamery sharks" were mainly sent out, finding its business was being seriously interfered with decided something must be done.

We soon find t at c ncern very liberal advertisers in agricultural and dairy papers, which they had not previously been.

Soon after that took place the term "creamery shark" fell into disuse in such papers and the "promotors," as they were called, of stock companies for building creameries had smooth sailing.

Such companies were organized and large butter and cheese factories were erected and fitted out where there were not cows enough to supply milk for even a small plant.

The average cost of such plants complete was for a time about $7,000. The average history of a large majority of them is that they were usually operated one season, and a short one at that; in some instances only a few weeks the first season and that ended it. Such plants have come to be shunned by insurance companies as they have a habit of mysteriously disappearing in smoke. There were some exceptions, but that was the rule.

It is worthy of note that the word or term that was used largely by the "promotors" of such companies was "co-operation" or "co-operative creameries." These terms seemed to take with farmers and helped to secure their subscription for stock.

The above state of affairs continued because there was no one to champion the cause of the farmers who had been swindled and others who were prospective victims, until a paper in this city (Clinton, Iowa), took the matter in hand and ventilated it thoroughly in an editorial. The immediate cause that led to this was to protect farmers in the paper's own county. But the effect of that editorial did not end there but extended all over the country. It resulted in dealing a blow to the creamery shark interest, from the effect of which it has never recovered.

The above is a brief account of the cause set in motion that brought about the second and lasting reaction against "creamery sharks" and their backers. Since then it has not been quite so easy for them to find victims. Yet they still find too many, as all of the agricultural and dairy papers do not expose their swindling methods. However, some of the local papers sound notes of warning and whatever is done in that direction can be traced to the editorial in the Clinton paper.

F. W. MOSELEY.

The Liming of Soils.

The use of lime as a soil improver is very ancient, and its value for this purpose is generally recognized. Its action as a fertilizer is both direct and indirect, says a recent Farmers' Bulletin. There are many soils in which lime is deficient, notably in soils derived from granite, mica schist, and sandstone formations. On such soils lime is of direct value in supplying a necessary element of plant food.

The indirect value of lime is perhaps more important than its direct action, because probably the majority of cultivated soils contain sufficient lime to meet the direct demands of plants. Lime is of indirect value in unlocking the unavailable potash, phosphoric acid, and nitrogen in the soil.

Lime exerts a decided influence on the mechanical conditions of soils, rendering heavy compact soils looser in texture and tending to bind particles of loose leachy soils.

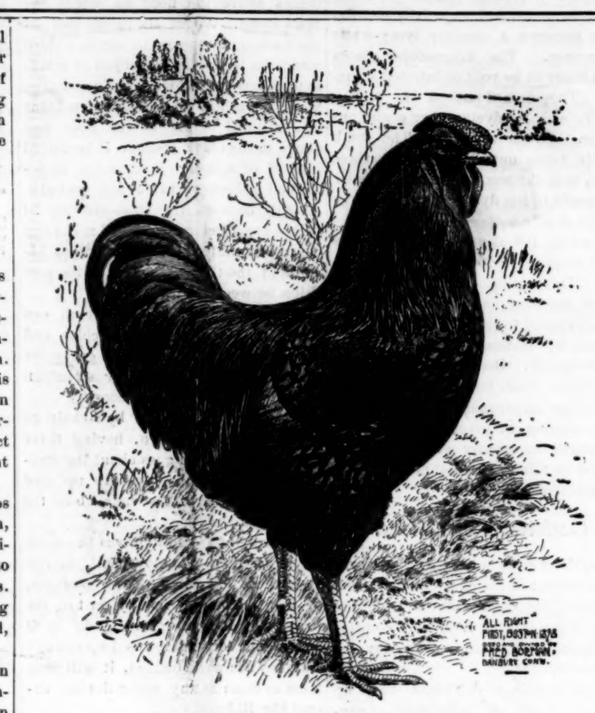
Lime is also beneficial in furnishing conditions in the soil favorable to the activity of the micro-organisms which convert the nitrogen of organic matter into nitrates which are readily assimilated by plants, which decompose organic matter, and which assist leguminous plants to assimilate the free nitrogen of the air.

One form of lime, gypsum, has been shown to be a most effective corrective of black alkali, found in some parts of the United States.

The continued use of lime unaccompanied by other fertilizers may prove injurious, especially on poor soils, since it converts the insoluble nitrogen, potash, and phosphoric-acid compounds of the soil into forms which are rapidly taken up by plants or washed out in the drainage, and thus hastens the exhaustion of the supply of these substances in the soil. As the German adage states, "The use of lime without manure makes both farm and farmer poor." If the soil is not abundantly supplied with organic matter, its retentive power for water and fertilizers may be seriously reduced on account of the destruction of the organic matter by the action of too much lime. Soils are sometimes injured by applications of impure forms of lime, which harden like cement in the soil, or of those which contain an excessive amount of magnesia.

It has been shown that even many upland and naturally well-drained soils apparently in good condition otherwise are so sour (acid) that most plants will not thrive on them. The application of caustic lime is the most economical and effective means of correcting this condition. According to experiments made by the Rhode Island Experiment Station on acid soils in that State, the plants tested may be classified with regard to their behavior toward lime as follows: Plants benefited by liming—spinach, lettuce, beets (all kinds,) gumbo (okra), salsify (vegetable oyster,) celery, onion, parsnip, cauliflower, cucumber, eggplant, cantaloupe, asparagus, kohl-rabi, cabbage, dandelion, Swedish turnip, pepper, pea, peanut, martynia, tobacco, sorghum, alfalfa, clover, barley, wheat, oats, timothy, and Kentucky blue grass; plants injured by liming—serradella, watermelon, blue lupine, and common sorrel (Rumex acetosella); plants indifferent to liming—Indian corn, common millet, Hungarian, golden millet, rye, potatoes, carrots, Rhode Island bent (grass), and redtop (grass.)

Lime may be applied in a variety of forms, among which are caustic, or burnt lime, or quicklime, which should contain at least 90 per cent of actual lime (CaO) and is the most concentrated form of this material; gypsum, or land plaster, in which the lime is in the form of the mild sulphate; ground limestone and chalk, in which the lime is in



GOLDEN WYANDOTTE COCK.

the form of mild carbonate; different kinds of marl, containing varying proportions of sand and clay and from 5 to 95 per cent of carbonate of lime; wood ashes, which contain from 30 to 35 per cent of lime in the form of carbonate; limekiln ashes, containing about 40 per cent of lime; and waste lime from gas houses, sugar beet factories, etc., the composition of which varies with the process of manufacture.

It is impossible to state definitely for all locations and conditions what form of lime is cheapest to use. Caustic, or quicklime, is the most concentrated form and consequently the most economical to handle. On account of its caustic properties it is more vigorous in its action than the milder sulphate (gypsum) or carbonates (limestone, chalk, wood ashes, marl, etc.). There may be special reasons, however, why some of the latter forms may be preferable. For instance, gypsum, on account of its peculiar composition, has been found to be a specially valuable corrective of black alkali.

The frequency with which liming should be practiced depends, among other things, upon the character of the soil and the rate of application, the number of years involved in the rotation practiced, the plants grown and their order of succession. As a general rule, it may be stated that from one-half to one and one-half tons of lime per acre every five or six years is sufficient. Applications of two or three tons may, however, be advisable in case of very acid soils which are to be seeded down and to remain in grass for several years. The practice of applying small amounts of lime at somewhat frequent intervals is being generally accepted as preferable to the use of large amounts at rare intervals.

Lime in the form of carbonate of lime, as in marl, wood ashes, etc., can usually be applied with safety in the spring or at any other season of the year, but autumn is always the safest time to apply caustic or slacked lime. It is generally considered best to apply the lime to the soil immediately after plowing and harrow in thoroughly. Lime which is already slacked may be spread upon the soil directly from wagons or carts, or dumped into heaps and then spread with a shovel, although the most satisfactory plan in such cases is to use a lime spreader or ordinary grain drill with fertilizer attachment. Where a lime spreader or similar implement is not available the burnt lime may be placed on the soil in piles of from forty to fifty pounds each, covered with moist earth, and allowed to slack before being spread with a shovel. Marls frequently contain injurious compounds and should therefore be allowed to weather for some time in the field before being incorporated with the soil. The same is true of gas-house lime, which is impregnated with sulphur compounds which are injurious to plants.

In conclusion it may be said, ascertain first whether lime is needed. If it is, apply it judiciously, and never depend upon lime alone to maintain the fertility of the soil, for all of the ingredients which plants need must be present in the soil to insure the profitable production of crops.

Milk as Food.

Excepting meats, there is probably no one article of food which is liable to so wide a variation in its percentage composition as the milk supplied the consumer says Farmers' Bulletin No. 74. The variations are so great, in fact, as to make it entirely possible that one man may pay nearly twice as much as his neighbor for the same amount of nutriments when both buy it at the same price per quart. The causes of such variations are quite numerous and need be touched upon but briefly. The variation in composition of pure milk is due in a large degree to the breed or individuality of the cow, to the methods of feeding and handling, and the length of time since calving.

With regard to this subject Professor Vorhees says:

The influence of breed is very marked, so much so that dairy breeds are classified into milk and butter breeds—that is, those which give a large quantity of poorer quality, and those which give a smaller quantity of a higher quality. * * * With the improvement of the stock by the introduction of recognized butter-producing breeds of cows the quality of the product also materially improves.

In general young cows produce richer milk than old ones, though much depends upon the health and vigor of the animal. A well-fed cow gives more and better milk than one which is poorly fed, but the relative proportions of fat, casein and sugar do not appear to be greatly influenced by the composition of the food. The average cow of a given breed posesses certain capabilities for producing milk, but does not reach her normal capacity of milk production unless she is well fed. When once she has a sufficient and well-balanced ration neither the composition nor the amount of the milk yield seems to be greatly improved by either increasing the ration or changing the proportion of its ingredients.

The milk flow of a given cow is usually largest soon after calving; as the period of lactation increases, the flow gradually falls off, and, as a rule, the milk grows richer, i. e., the proportion of solids increases. The proportion of fat to the other solids in the milk of a given cow varies from day to day and from milking to milking.

Another cause of variation in milk is found in the temptation of unprincipled milkmen to adulterate their product. The chief methods of adulteration are (1) the addition of water, (2) the removal of a portion of the fat, either with or without the addition of water, and (3) the addition of preservatives. The two former methods result in a greater or less diminution of the food value, depending upon the extent of adulteration. The latter method does not detract from the total nutriments in the milk but it adds substances which, while not active poisons, may, when taken in the milk regularly in small amounts, produce deleterious results. The specific gravity of the milk is sometimes used as a test of its purity, but since removing part of its fat in form of cream raises and adding water lowers the specific gravity, one form of adulteration may counteract and cover up the other, and thus render this test a one unreliable.

The flavor of milk is frequently affected by the food eaten by the cow. It is a familiar fact that turnips when fed to cows give a peculiar taste or flavor to the milk.

The milk of diseased cows may be very abnormal in composition and may be the means of conveying disease. It is well understood that milk can act as a carrier of infection, and it is therefore of the greatest importance that especial care be taken in the dairy to insure the cleanliness of milk and to render its exposure to any germs of infectious diseases or to impure air of any sort impossible. It should be possible in all large cities, as well as in the smaller cities and country towns, to obtain some assurance that the milk received comes from healthy animals and receives proper care and attention after being drawn from the cow. This assurance should be obtained either by the public authorities, by the employment of honest, reputable dealers, or by personal inspection and examination.

Milk is peculiarly adapted for use as a food by man for several reasons. It contains all of the four classes of nutriments—protein, fats, carbohydrates and mineral matter in more nearly the proper proportions to serve as a complete food than any other food material, although no one substance can furnish a complete food for an adult for reasons referred to beyond. It is in a form well adapted for varied uses either alone or more especially in combination with other food substances and in the preparation of various dishes for the table. Its use is already considered indispensable in many such cases and it might profitably be used in many more. At the price ordinarily paid for milk in our large cities it is a food of reasonable cheapness, and at the prices prevailing in small cities and country towns it is an economical food.

In general, milk ranks as a very digestible food, but when we come to speak more definitely as to its digestibility there are difficulties of two kinds. One of these has to do with what is understood by the term digestibility; the other has to do with the differences of different persons in respect to their powers of digestion.

By digestibility of food several things are, or may be, meant. One is the proportion of a given food material or of each of its several constituents which an ordinary person may digest. Another is the ease with which it is digested or the time required by the process. As the word is ordinarily used, however, it includes still another consideration, namely, whether the food material does or does not agree with the user.

"We live not upon what we eat, but upon what we digest." In other words the value of food for nutriment depends not only upon how much of the nutrients it contains, but upon how much of these the body actually digests and uses for its support. To put it another way, the most important factor of digestibility, so far as the nutritive value of food is concerned, is found in the proportions of its different nutrients which can actually be digested by healthy persons and used for nourishment. Considerable experimenting has been done upon this subject. While it is found that different people vary in the amounts that they can digest from the same food, the differences are not as great as might be supposed. The results, in so far as they apply to milk alone, and in comparison with other food materials, may be briefly summarized as follows: The protein of milk, especially when it is used with other food materials, is quite readily and completely digested. In this respect it is like the protein of ordinary meats and fish. The protein of vegetable foods is much less completely digested. Thus, in potatoes and whole wheat and rye flour it may sometimes happen that as much as one-fourth of the protein may escape digestion and thus be useless as nourishment. From one-sixth to one-tenth of the protein of wheat flour, corn meal, beans and peas may in like manner be assumed to escape digestion, or rather to leave the body without being used for nutriment. These estimates assume that the materials are cooked and eaten in the usual way. Under the same circumstances, from nine-tenths to the whole of the protein of milk, meats and fish are assumed to be digested. The digestibility of fats is likewise variable. Sometimes a large part of the fat of the food fails of digestion. In general it may be assumed that about five per cent of the fat of milk, meat, eggs, butter and lard, and a considerably larger proportion of the fats of some vegetable foods, will usually escape digestion. When, however, the diet contains a very large amount of fat—for instance, when it consists largely of fat meat—the digestion is less complete. One way in which the fat of ordinary foods is digested is by being made into an emulsion in the intestine. The fat of milk is extremely fine emulsion and is thus in a sense "predigested" or in a partly digested form before it is taken into the stomach. This may help to explain why it so easily digested.

The carbohydrates, which make up a large part of vegetable foods, are in general very digestible. Cane sugar is believed to be completely digested, and this is assumed to be the case with sugar of milk.

The animal foods have in general the advantage of the vegetable foods in digestibility in that they contain more protein and their protein is more digestible. Milk ranks among the most digestible of the animal foods in respect to all its ingredients.

Triumph of Private Dairying.

I have been very much interested for a number of years in watching the market quotations of butter to note the gradual disappearance of the margin between dairy butter, made at home, and the product of the public creamery.

It is not so very many years ago that there was a wide difference in the comparative value of these two dairy products, as shown by the market reports; and it has pained the heart of every maker of first class in the private dairy to note this divergence, for he knew beyond a peradventure that there was absolutely no reason in justice why it should exist. So that it rejoices his heart today to see the margin practically wiped out.

Why is this so?

Simply because consumers are coming to know that there is no better butter made in the world than that produced by the home dairyman who uses modern appliances and exercises the same cautions as to cleanliness that prevail in the public creamery. Placing the products of their rival manufacturers side by side, with no ulterior influence to work for either, and there can be no doubt that the home dairy will hold its own every time.

Our dairymen should feel highly encouraged at this state of things to press on to new triumphs. They should recognize the fact that just in the degree that they prepare themselves by procuring modern equipments and use them carefully and intelligently they will see their product taking its true place in the market of the world. We have won so far by dint of fair dealing and honest work. This must continue to be our method. From one end of the road to the other, from pasture to churn and store tub, it must be our ambition to place before the public just the best possible wares, and we shall ultimately see the line between the price of our butter and that of the public creamery entirely obliterated.

E. L. VINCENT.

Broome Co., New York.

Stock Feeding Suggestions.

Far ners too often feed the stock just what they happen to have, while a properly balanced ration will be more economical and more efficient in growing or fattening the animals. Mr. J. M. Bartlett, in the report of the Maine Experiment Station, condenses scientific feeding into simple, practical form:

The valuable ingredients in animal foods are ash or mineral matter, protein, fat and a class of compounds called carbohydrates, of which starch, sugar and crude fibre are the most important examples. Although the ash or mineral matter is essential to the well being of the animal, it is abundantly supplied by most materials one is likely to feed, so what one most needs to consider in buying and using cattle foods are protein, fat and carbohydrates.

A sufficient supply of protein in the food is indispensable. The working animal depends upon it to replenish and repair its working machinery, the growing animal to make muscle and build up its whole system, the sheep to make wool and the milch cow to make casein and albumen of its milk. No other substance can take its place, or be manufactured into protein by the body. When more protein is fed than is needed for the growth and repair of the body, the excess performs the same functions as the fats and carbohydrates. As a rule, however, this is not an economical use to make of it. It is worth but slightly more than the carbohydrates and about six-tenths as much as fats for this purpose and is, commonly, the most expensive ingredient to produce or buy.

The office of the other two substances, fat and carbohydrates, is two-fold: First, they serve as fuel and are oxidized or burned in the body to supply heat and force. The fat is worth about two and one-fourth times as much as the carbohydrates for that purpose. Second, they are used as material for making fat.

It has been ascertained, by accurate experiment, that the amount of food required to keep an animal from losing weight is not materially different for different animals of the same size and species. All the food that they will profitably eat above that amount depends on their digestive and producing capacities. It is therefore evident, that a ration which would be profitable for one animal would not be for another, and no hard and fast rules can be made. For this reason the accuracy of feeding standards has been questioned by some feeders, but they certainly must be considered a vast improvement over the commonly practiced, haphazard feeding of any materials at hand. The successful and progressive feeder, can, by studying his herd, learn the capacity of each animal and vary its ration from the standard to suit the individual.

The table of digestible nutrients in 100 pounds:

	Protein	Carbohydrates	Fat
Linseed Meal	30.7	38.5	2.7
Gluten Meal	33.3	40.0	5.0
Cotton Seed Meal	37.0	18.6	10.0
Corn Meal	5.8	65.2	3.1
Wheat Bran	12.6	37.5	3.2
Ground Oats	8.9	50.1	3.0
Timothy Hay	3.6	43.9	1.6
Clover Hay	7.2	35.8	1.8
Oat Straw	1.4	43.9	0.9

Milk Fever in Cows.

While the dairy farmer may know what milk fever is from a practical standpoint, he may be entirely ignorant of its nature and causation. He knows that all around him 75 per cent of the cows affected die, and that there seems to be no remedy that can be depended on. When a strong, hardy, robust cow recovers it is sometimes claimed that the "wolf in the tail" caused the cow's recovery, for this old superstition about "a wolf" is still believed in by many country folks, as well as "hollow horn" and use of the "maw worm" when "the cud is lost."

All this, however, is now being changed by the introduction of a new method of treatment for milk fever by Veterinary Surgeon Schmidt, of Kolding, in Denmark, who has published his course of treatment for the benefit of his colleagues. It appears from the reports issued by several veterinary surgeons that four cases out of five recover under the Schmidt treatment.

As the infective element is located in the milk glands, the remedy is applied to the glands direct through each teat. For this purpose an injection tube, with a silver milking syphon, is used for the introduction of a solution of iodide of potassium of such strength as the urgency of the case may appear to demand. Often a solution of half a drachm of the iodide of potassium to two ounces of distilled water is sufficient. It should be injected into each teat carefully directly into the quarter affected. Sometimes a solution of double volume may be necessary, that is to say, one drachm of the iodide to four ounces of distilled water, to be injected through each teat.

After this treatment the cow is often found up next morning, ready for food and with a return of milk in her quarters. The treatment has mostly been supplemented by administrations of a brisk saline cathartic, followed by the adminstration of chloral hydrate in two or three-drachm doses, according to the excitement of the patient.

Since the introduction of this treatment among English-speaking veterinarians in the early part of the present year quite a number have tested the treatment and report favorably. It is to be hoped that owners of dairy cows may at last find relief from these heavy losses in their dairy herds. It is necessary to have qualified aid in this treatment, because there is liability to injure the milk-secreting vessels in using the injection. Therefore should the veterinary be out of reach, the local doctor can advise in its application.—Baltimore Sun.

Facts about Wool.

Hair only differs from wool in its physical structure; hence, while wool is the hair of sheep, strictly speaking, the hair of certain kinds of goats, as cashmere, mohair and alpaca, and even of the the camel is generally classed as wool.

Some naturalists assume that there are only three original species of sheep, namely, the Ovis ammon, or argali, the wild sheep of Asia and America; the Ovis musmon, native to southern Europe and north Africa, and the Ovis aries, or domestic sheep, which is the principal English and American variety. But from a more practical point of view there may be said to be no less than 32 varieties, four being found in Europe, 15 in Asia, 11 in Africa and two in America. Such is the classification made by Archer. All these produce different qualities of wool, distinquished apart by the length, fineness, strength, elasticity, color, curl, etc., of the fibres.

Wool also varies in quality on an individual animal. Thus the best comes from the shoulders, the back, the lower part of the neck and the upper part of the sides. All other parts give an inferior quality. These different sorts are gathered and separated by hand, and the work is called "wool-sorting."

As a rule, wool fiber has a diameter proportioned to its length—the shorter the staple the finer the fiber, and vice versa. The finer qualities of Merino or cross-bred wool usually known as Botany wool, comes from Australia. Cashmere wool comes from India, being the product of a Thibetan mountain goat. This hair or wool is often eighteen inches long. The llama, a goat, produces a hair known as alpaca. Mohair comes from the Angora goat, native to Turkey and the Cape, and is distinguished by high luster. Camels shed their hair annually, and this is gathered and sold as a textile material.

The fleece from live, healthy sheep is considered the best, though if taken from a slaughtered sheep by cutting it is equally good. But when removed from the skins by steeping in lime water or diluted solution of sodium sulphide, a process that loosens the hair at its roots, the wool is inferior, and is known as "pulled wool." The wool from a diseased sheep is inferior. Bosc has made an interesting experiment to demonstrate this fact. He took the wool of three sheep; all of the same age and race. The first was in robust health, the second diseased, the third had died of disease. Each fleece was washed separately and spun into yarn, made up into hanks and dyed at the Gobelins in three shades—blue, red and yellow. The colored hank from the wool of the healthy sheep was bright; that from the diseased sheep, of a lighter shade; that from the dead sheep was dull. All three samples were dyed in the same bath.

Very little wool is now washed on the sheep, but comes to market "in the grease," or unwashed. The wool is divided into long-stapled and short-stapled qualities. After being sorted and washed, the wool is "combed." The long-stapled variety, having fibres exceeding one and one-half inches in length, is made up into "tops," which are spun into worsted yarn. The shorter fibers are spun into woolen yarn. Worsted yarn is used mainly in making coatings, trousering and ladies' dress goods which need no milling, or very little. Woolen yarn is worked mainly into goods which are subsequently "milled," which operation effects a felting of the fibres. In worsted yarn the fibres lie more or less parallel to each other, and the diameter of the yarn does not vary much. In woolen yarns the fibres lie in all directions, and the diameter is quite irregular.

Under the microscope, clean and white wool fiber appears in the form of a solid rod-shaped substance, the surface appearing scaly, like that of a fish. The fiber at the first cutting appears with a blunt, tapering point, but with all subsequent clips the point terminates abruptly. Dr. F. H. Bowman has laid us under obligation for what we know about the internal structure of wool fiber. He tells us that it is made up of a vast number of individual cells which taper toward each end to a finer point. These cells have much to do with the behavior of the wool in the various operations of the scourer, dyer and weaver. Treating wools with sulphuric acid causes them to stand out more prominently. When worsted or woolen fabrics are subjected to friction in the wet state, especially in the presence of an alkali, as soap and soda, the friction of the fibres is greater in the one direction than another, the result being that it "felts" or "runs," becoming thicker and denser. Milling produces this effect, and the result is seen in flannels, broadcloths, tweeds, etc.

The average length of the various classes of wool may be taken as varying between 1 1-2 and seven inches, and the diameter from 0.004 to 0.0018 inch. The following interesting data I take from Bowman's "Structure of the Wool Fiber"—the "breaking strain" stated in grains, the "elasticity" in percentage of length, the "diameter of fiber" in decimals of an inch:

Kind.	Breaking Strain.	Elasticity.	Diameter.
Leicester	502	0.284	0.001810
Southdown	86	0.268	0.000990
Australian Merino	50	0.335	0.000517
Saxony	39	0.272	0.000338
Mohair	586	0.299	0.001700
Alpaca	149	0.242	0.000526

Coarse wool, and especially mohair, often presents a peculiar ivory-white appearance. The microscope shows these fibers to be void of internal structure. They do not possess the felting power, and in dyeing they come out lighter than the wools do. The comb usually takes out the most of these fibers, and the few that remain cause annoyance to the dyer, the spinner, the weaver, etc.

Dried at 100 degrees C., wool loses on an average 18.25 per cent. of moisture. This drying out of its moisture makes the wool harsh and brittle, but when exposed to the atmosphere again it takes up moisture and becomes as before drying. Heat above 100 degrees C. injures wool, but Persoz says that a previous impregnation with a 10 per cent. solution of glycerine renders it unchanged in quality even under 130 degrees to 140 degrees of heat.—Country Gentleman.

Comfortable Cow Stalls.

Anything contributing to the worry or discomfort of the cow detracts from the milk yield and of course from the profit of the dairy. Ease and comfort for the cow mean milk and money for the owner.

In most things dairymen keep up with the times, but in the way of confining (I hate the word) the cows in the stable they are just where their fathers left them a full generation ago.

Go where you will and more than nine-tenths of the cows are still compelled to stand from sixteen to twenty hours each winter day with their necks in the old fashioned rigid stanchion. No one can give any reason for so keeping them only that their fathers had them made and they continue to use them without counting the cost.

They are not using them on the score of cleanliness for about the dirtiest cows I have ever seen in the stable were in these fastenings. The cow gets filthy if the platform is not of the right length. There certainly is no comfort in their use, for to put the cow's neck in such a device is equivalent to putting a man in the stocks.

Any and all the so-called swing or moving stanchions are but little better and none are fit to be used in the modern dairy stable. Of all the devices I have ever seen none are quite equal to the Bidwell stall. But this, while perfect and keeping the cow in perfect cleanliness and comfort, is a patented device and quite expensive to construct.

A few years ago we fixed over one of our stables and put in new mangers and a method of tying which while very simple and inexpensive I like very much.

Our cows stand in two rows facing each other, but may be arranged heads out just as well if preferred. There is a feeding alley three feet wide in the clear between mangers. Each manger is two feet wide at bottom and two and a half at top, the side next to alley being on a slant.

The bottom of manger is six inches above the floor, so as to allow cats free range underneath. The side next cows is ten inches above manger bottom or sixteen inches above floor and has a 2x4 lying flat, with top side rounded, as a top rail. The back edge is just flush with the 2x4 that makes the stud to support manger side, which brings the other edge even with the inch cleat holding the partitions in manger, for I like the mangers so divided that each cow gets only what is given her and cannot rob the slow eating cows on each side of her.

To fasten the cows we set round stanchions which may be turned from tough wood 3 inches in diameter, or may be cut, as mine were, in the woods and the bark peeled off, just back of manger rail far enough so the tie or chain to hold the cow can slip up and down freely. I use the Woodward watering basin, and to accommodate this I set these stanchions 20 inches apart in pairs and fasten a cow to each one. The basin is fastened to a 2x5 piece which stands on end on floor just back of the manger rail, its lower end fastened firmly to the floor and as firmly bolted to the manger rail with the basin bolted so as to have its top 30 inches above the floor on which the cows stand. About six inches back of the basin and opposite its center a third stanchion is placed, the object of which is to prevent the cows from quarreling with each other. All these stanchions are fastened firmly to the floor and above to the stable ceiling. If preferred instead of this third stanchion as described a short partition may be built. As will be seen the cows are only 20 inches apart between sides of necks but neither can interfere with the other because of the third stanchion or the partition between them.

With the watering basin each can drink from between her stanchion and the back one, but neither can get to the other in front of the manger stanchion or back or between the others.

My cows are fastened by a chain or tie of the Ohio pattern, having three ends, one of which goes about the stanchion loosely so it can slip up and down and the other ends about the cow's neck.

The way of fastening gives the cows great freedom of movement, allows them to lie down in a natural position, to lick themselves in any part of the body and if platform is made to fit and trench for manure is deep enough and they are well bedded, it will keep them as clean as any other device except the Bidwell stall.

Another feature of this plan which I like, where a self watering device is used, the water basins are not in or over the mangers but entirely back of them and will keep much cleaner from feed and litter than when in any part of the manger.

I have seen but very few stables arranged like this and these have all been done upon my suggestion or after seeing mine, and every one who has so fixed his stable is more than pleased. The same arrangement can be used without the watering device.

It makes me sad to go into a stable and see so many cows with great bunches on knees or shoulders all out of shape, as a result of confinement in the old barbarous stanchion.

Brother farmers, try my plan and see if you don't sleep better. One thing is sure if you don't the cows will, and will pay you for the change in the milk pail.—J. S. Woodward in the National Stockman.

See our Special Offer on the Eighth page.

POULTRY.

Sensible Feeding.

Poultry growers frequently give stimulants with soft feed and printed directions often mention pepper, ginger, salt and other spices as if these were essential, but in point of fact it is very doubtful whether anything of the kind is of real benefit. Many large growers do not use spices, for example, the professional poultry farmers of southern Rhode Island.

Dairymen used to think they must give cattle bone meal, spices and condiments, and all sorts of extras, but they have now generally come to the conclusion that nothing pays but good substantial food and care. It is highly probable that the science of poultry feeding will simmer down to about the same results.

Poultry Notes.

Do not leave feed in the coop after hens have eaten all they wish. They will over eat and afterwards lose their appetites or have indigestion.

Other things being equal, a free range is best for hens, but a few hens in a small run, thoroughly well cared for, will often beat a neglected flock in a ten acre yard.

Hens which eat eggs can be cured by putting nests in a dark place and leaving china eggs in the yard where they can try to break them, also supplying them all the oyster shells they need for lime. Hens which have the egg eating habit in confinement often drop it without trouble upon giving them free range, having other things to attract their attention.

The surplus males should be counted out early. Keeping a lot of roosters along into the cold weather is a great reducer of profits on many a poultry farm. The best time to sell the old hens, too, is just before moulting season. Some of the most vigorous hens of the best laying stock will continue laying almost through the time of moulting season. These, of course, should be retained.

Don't let the eggs get neglected and allowed to accumulate in out of the way nests. Such nests are sure to contain occasionally an egg which is not strictly fresh, and it will be the occasion of considerable damage to a choice trade. In any case the appearance of old nests full of eggs is seldom quite right; another objection is the fact that hens are encouraged to set by the presence of a number of eggs in the nest, while they will give little trouble if eggs are collected twice a day.

Soft shelled eggs are said to be caused by over fatness, but the theory is doubtful since the eggs are usually all laid by one or two hens in a flock which are not noticeably fatter than the others. Probably the trouble is owing to some defect in the organs of the hen and the only remedy is to separate, fatten and kill the offender. Reference is made to eggs which are covered merely with skinny membrane. Eggs which have a shell which is merely thin and easily broken are caused by lack of lime, and a certain remedy is oyster shells and cut bone.

The best of the common egg preserving mixtures depend upon lime for their chief value. Take a large piece of unslacked lime, cover it with cold water and mix it to a thick cream. Put a layer of the lime cream at the bottom of a glazed pan. Place the eggs point downwards in the pan and add more lime, and place another layer of eggs in the same way until the pan is full. Keep in a cool cellar. When wanted for use soften the lime with water to prevent breaking. Spring eggs put up in this way are kept perfectly till Christmas and answer well enough for cooking. Eggs put up now will keep very easily for winter use.

Sheep on Abandoned New England Farms.

The editor of the Wool and Cotton Reporter undertook to reclaim an abandoned farm with a large flock of sheep, and was much laughed at for the experiment, but he wins success. He says:

"The 'abandoned farm' of the Wool and Cotton Reporter in Freedom, Waldo county, Maine, will cut nearly 200 tons of the highest quality of hay this summer. When we purchased this farm, and began our experiments with sheep husbandry thereon, it cut barely 45 tons of inferior hay. Moreover, we have introduced the Rambouillet sheep for the first time in Maine, and about forty farmers in different parts of the state adopted them from our flocks last year, from whom they will spread marvelously the next few years, and will give to the sheep of the Pine Tree State precisely the elements of hardihood, weight of fleece, and ability to herd in larger flocks, which the sheep of that section require."

Gather Nitrogen From Clover.

There are three principal elements required to make our soils fertile; these are nitrogen, phosphoric acid and potash. These elements can be obtained in different ways, but none better than by growing clover. We take the following valuable extracts on this subject from a paper delivered before institutes by T. B. Terry of Ohio: You can purchase grain and feed it on your farms; or you can buy fertilizers in bags, and when you do this you buy them to get one, or two, or all three of these elements, and for no other purpose. But the trouble with these ways, particularly with the last one, is that they are too expensive. It costs too much to buy the fertility; we do not get enough for our product so that we can stand the drain. We are paying a large mortgage on our crop before we get it, in buying the fertility.

There is a cheaper and better way to obtain these elements. There is also quite a difference in these elements. The air is the great storehouse for nitrogen. More than three-fourths of all the air that surrounds the world is nitrogen. By growing clover in a regular rotation you can transfer as much of this nitrogen from the air to the soil as you may want on the land to produce as good a crop of grain as can stand up on it. You may transfer the nitrogen from the air to the land by the growing of the clover; that is the greatest value that the clover plant has for us. Clover has the ability to feed on this free nitrogen in the air, and that is the most costly element in the fertilizers which we purchase. We pay sixteen cents a pound for nitrogen, and only about one-third as much for phosphoric acid and potash. The clover has the ability to feed on this nitrogen it grows itself, and after the plant has grown you have the nitrogen in the large top roots of the clover. Thus in the growth of clover above ground, the nitrogen that was in the air before you grew the clover is absorbed by it, and when it is plowed under, or cut for hay and fed out and the manure returned to the land, you have the nitrogen in an available form for your following crops, corn, potatoes, or whatever you choose to put in!

Corn, wheat, oats and such crops cannot get any of this nitrogen out of the air, although they grow in this atmosphere which is more than three-fourths nitrogen. They are not organized that way. Clover acts as a middleman to transfer the nitrogen from the air to the soil and put it in an available form for other crops.

It is possible by growing clover in a regular rotation once in three, or four, or five years, as it may be found best on your farm, practically to get out of the air all the nitrogen that is needed on your farms for ordinary farm crops. You cannot do it all at once, perhaps not in five or ten years, but systematic work in this direction will result in getting all you want in time.

How shall we get the phosphoric acid and the potash to balance the nitrogen in order to make our land fertile in all of the elements? The feeding roots of wheat, corn, oats and all such crops are near the surface but clover does not grow that way. It has a tap root. The little fibrous roots of the clover go downward, almost straight down, from the large tap roots, starting out from the lower part and working down into the subsoil to a considerable depth. These little fibrous roots that you would hardly notice with the naked eye unless they were wet, come out from the large tap root above and work down perhaps hundreds of feet in the aggregate. The storage part of the plant is in the large tap root which is up in the surface soil. The nitrogen it gets out of the air and the phosphoric acid and potash down where the feeding roots are.

What is the result after we have grown a heavy crop of clover? We have brought down nitrogen out of the air, and we have pumped up mineral matter from the subsoil. We have brought these three elements together, in the soil and out of it, in just about the right proportions to feed the following crops, corn, potatoes, or whatever you choose to put in. None of the elements, to any extent were in the surface soil before you grew the clover, all of them are there after you have grown it. Another necessary point is working the soil finer when preparing a seed bed for a crop. This is not only to make a good seed bed but it will liberate the plant food by thorough pulverization. Work it very fine, rolling and harrowing, until you get it down almost to road dust. You can liberate more plant food in this way than would be done by ordinary tillage. —Prairie Farmer.

How To Grow Mushrooms.

Much has been said and written in regard to the cultivation of mushrooms, but it is safe to say, that the half of the people who attempt to grow them make a failure of it. I cannot account why this should be if proper care was given them and the spawn was fresh, as they are a crop that needs no art in growing if attention is given at the proper time, which is in the making up of the beds, as more failures can be traced to using poor manure than any other cause.

THE MUSHROOM HOUSE.

Very little need be said about the style of house needed for growing mushrooms, any out building, cellar or under the benches of a cool greenhouse, any place where a temperature of forty to fifty-five degrees can be maintained, providing the place is dry, mushrooms can be grown; in fact, I have grown good crops in a piggery cellar where the temperature often went down to twenty degrees, but such beds had to be boxed in and well covered up to exclude frost.

PREPARING THE MANURE.

This I consider the most important part of mushroom culture, and would advise amateurs to avoid complicated ideas in the making up and taking care of the manure until ready for the bed. My mode of making up the manure which has always given me a splendid crop is as follows:

I use eight inches of rough manure in the bottom of the bed and four inches of finer manure mixed with soil on top. I collect the rough material just as though I was to make up a hotbed. Having the manure quite wet with urine if it can be got in this way, it is put in a pile to heat and turned over as needed to keep it from burning. If at any time it should become dry, it should be given a good hosing—not a sprinkle. The fine manure we try to gather all at once; this consists of pure horse droppings; or as clean from straw as can be had, to this we put one part of soil to four parts of manure, putting in a part of soil at each turning until the quantity of soil is given. It is well to prepare the manure in an open shed, this keeps the weather away from it and it is less liable to get dry or over wet, but as I said, keep the hose on it if it should get dry, as I think more failures arise from the manure being too dry when put in the bed than from any other cause. I like to feel a moistness when handling it, but not so wet as water will come from it when squeezed in the hand. Some mushroom growers advocate using pure horse manure; no doubt good crops can be obtained from such but to gather enough of this pure horse manure is no easy task; the labor is great and if the crop is to be grown in large quantities it would hardly pay. Again, I have tried this short manure to make up the beds in full but never had such a crop as I had where long strawy manure was used in the bottom of the bed.

MAKING UP THE BEDS.

If the beds are to be made up in a cold cellar where no artificial heat is to be used, the sides of the bed had better be twenty inches high and four feet wide and any length desired, two ten-inch hemlock boards set on their edge and well nailed together will make a cheap and lasting bed. By making it so high it gives a chance to cover it up if the cellar should get too cold. In such a bed one foot of rough manure should be used, and four inches of the prepared, which will give a four-inch space between the bed and the top of the sides; any covering can be laid over this without disturbing the mushrooms while in bearing. Again, if heat is to be used such a depth of a bed is not needed—ten to twelve inches would be enough, say eight inches of rough manure and four of the prepared. When the manure begins to lose its violent heat and when the temperature has declined to 130 degrees, it is ready for the beds. Put it in in layers and trample or beat it as firm as can be made until the desired depth of manure is had; plunge a thermometer in the bed and cover the whole bed with hay (salt if it can be had, as no foreign seeds will then grow.) Examine the bed every day and see that the temperature does not get over 125 degrees; if it should, take off the hay at once. On some rare occasions the temperature may go up even higher, at such time it would be advisable to make holes all over the bed with a bar, but when the heat declined these holes should be rammed with fine manure. Again, when the temperature has gone down to 95 degrees the bed is ready for spawning, which should be done at once.

SPAWNING THE BED.

There are two kinds of spawn, namely, English and French. The first named is made up in brick form while the French is in flakes, and to one pound of French used there is fifty of English, it being considered the best as the crop lasts much longer. I have used both kinds on the same bed and always had the best crop by far from the brick spawn. A good size to break up the spawn is to make fifteen pieces out of each brick; as it is rather hard, a hatchet should be used to mark it off, it is then easily broken with the hand. Break up as much as needed to spawn the bed, fill it in a basket, begin at one end of the bed and lay the pieces (which will be about the size of a hen's egg) eight inches apart all over the bed; start at the end and plant this spawn about an inch and a half deep, covering it up and making the whole firm. When this is finished go over it with the back of a spade and beat the whole bed quite firm, plunge in the thermometer again and put on the hay. This is now an important time, look at the bed quite often, and if the temperature should rise above 95 degrees, take off the hay at once, but put it on as soon as the temperature again falls below 95 degrees.

SOILING (OR CASING) THE BED.

Most growers have a fixed day for doing this operation, generally on the eighth day. This is a wrong idea; I would never case a bed before the temperature declined to 85 degrees. I have often had beds on the eighth day standing at 90 to 96 degrees, to soil and these would mean failure, as by doing so the steam arising from the manure at such a high temperature would be prevented from passing off, which would result in the spawn rotting. Again, if I found that the temperature of a bed was failling too fast—say to 75 or 80 degrees the third day after spawning—I should case at once. I would say do not soil over the bed when the temperature is high, though it is twenty days after spawning. The kind of soil to use is of no great importance, I have tried all kinds and would get just as good crops where soil from the garden was taken as I would from maiden loam. I prefer to put it through a half-inch sieve, as it makes a better job. Two inches of soil is used, and well firmed with the back of a spade, and when all is finished the hay is put on the bed again to remain till the crop begins to show, which will be in about five to eight weeks, when it should be taken off.

WATERING.

Never allow the beds to become dry, the mycelium will not run in a dry bed. Look over the beds every week between the time of spawning and bearing; if they should get dry (which is not often the case if the manure was in proper shape), do not be afraid to give a good watering, a light sprinkling is of no use. If the soil is dry that means the manure is dry also. Use water at a temperature of 95 degrees and go over the bed two or three times, using a fine rose and can for the purpose. At the end of six weeks I always like to give a good watering if the beds show any signs of dryness at all, as by watering when the crop is bearing the small mushrooms are liable to damp off.

GATHERING THE CROP.

In gathering the crop draw the mushrooms out with a twist so as not to disturb the small mushrooms which may be in the clump, fill all holes again with soil and make firm. When the first crop is past if some dry cow manure can be got, mix three parts of it to one of soil, putting it all through a half-inch sieve; spread half an inch of this all over the bed and firm with a spade and give a good watering, and repeat this as the crops are gathered—cow manure has a telling effect on the beds. If soil alone was used the second crop would be small, but by using cow manure I have gathered mushrooms from October till May from the same bed; of course, the last picking was not so good as the first, but enough to supply two large private families.

DISEASES.

The mushroom is not much affected by disease, the only thing I have had to contend with was an occasional case of flock, this is mostly seen in worn-out beds, the mushroom comes up flat and hard and has no frill and is easily known from a good mushroom. They are regarded as unfit for food and should be cleaned out of a bed as soon as they appear.

There is nothing to hinder anyone from growing a crop of mushrooms if these simple directions are followed. I have grown mushrooms the past few years in this way and have yet to record a failure.—American Gardening.

Permanent Stairs in Barns.

It is very strange how some farmers, year in and year out, will climb up in the barn or hay mow to put in and take out hay, straw and other fodder without the aid of a ladder or stairs, but climb from a manger, box or barrel, grasp a brace, stringer, or other projecting portion of structure, and by an extra effort swing or throw the body upward, and perform similar gymnastic feats to again reach the floor. This is most often done in midwinter when the hands are encumbered with heavy mittens. These operators can thank their stars that they do not fall, endangering life and limb.

By the expenditure of a few dollars and a day's time an easy and safe way of access could be made to any of these lofts, and one could actually save enough time between the sensible and the careless way in a year's time to cover all the expense of construction. It may possibly make a man more muscular to twist and hang by one hand to reach the hay mow, but the more considerate prefer the easier plan. In wagon houses in which horses are stabled, stairs, should, by all means, be used to reach the loft, as then women and children can often feed the horses with perfect safety. Skeleton stairs can be erected with simply the steps and sides, but they should be made strong and firm.—Farming.

Method of Packing Apples.

A convention of shippers of apples was held recently at Buffalo, N. Y., at which a paper on the proper way of shipping apples was read by L. K. Sutton, of Ohio, in which he said:

"We will take the barrel as the standard package for use in storing apples, but the writer firmly believes that in the near future the bushel box will be used quite extensively for storing the better grades of apples for late keeping. The barrel should be made of No. 1 staves, heads and hoops, the face and head lined, top and quarter hoops nailed with three-quarter inch nails before going to the orchard; never use a wire nail. Our experience has been that apples hand-picked from the tree and carefully placed in the barrel show best results. Apples thus packed show their bloom better and show a life of freshness that apples which are run over a table or laid on the ground for a time before going into the barrel do not have. When you please a buyer's eye the sale is half made.

"We believe in double facing, using apples as nearly one size and color as possible, and to have the free apples represent the remainder of the barrel in size as near as practicable. Shake the barrel gently after each basket is emptied until the barrel is filled. Some varieties will stand filling three inches above the chime, others not so much; right at this point is where great care is needed. Apples properly filled in the barrel, and an experienced man with a press, can add very much to the keeping and selling quality of the apples. We often find from eight to twenty or more apples badly bruised at the bottom, caused by too much pressing; simply a waste and loss, and frequently a barrel will shake, and the dealer must use a like quantity to plug or fill the barrel before sending it out to a customer. With proper care in barreling and heading, all this extra work and waste of apples would be avoided. Shake well and level off the face before putting in the head, then nail and head line carefully. It takes a little time, but one barrel bursting in a car will cause more loss than the extra labor spent in securely nailing the bottom. A careful packer will put a private or distinguishing mark on an extra fine colored barrel that will frequently bring his employer an additional 50 cents or $1 from stand buyers who want quality, and the same plan followed by marking an off barrel will assist the salesman materially in satisfying a customer who wants a lower-priced apple.

"It is preferable to load apples on the car the same day as picked, and apples placed in storage as soon as possible after packing keep better than when lying on the ground or stacked up in piles under trees or alongside the station and exposed to rain and sun. The question on what day to begin barreling for storage is frequently asked; our rule is when the seeds are black, apples pull fairly free from the limb, with the short stem remaining in the apples, even if the proper color is lacking. Above all, use only a standard sized barrel, the package recommended by this association; and make three grades of apples; firsts, seconds and drops. The apples that drop while picking are often the largest and best colored, but should not be put in with the fruit for storage, even if they fall on soft ground or grass; the fall injures them, even if the skin is unbroken; they will show dead color in a few weeks and injure the sale. The header should use care in marking plainly the variety and the face end of each barrel to save the salesman much annoyance and labor."

MASSACHUSETTS PLOUGHMAN
NEW ENGLAND AND JOURNAL OF AGRICULTURE.

BOSTON, SEPTEMBER 10, 1898.

☞ *Persons desiring a change in the address of their paper must state where he paper has been sent as well as the new direction.*

Removal.

The offices and composing room of the MASSACHUSETTS PLOUGHMAN have been removed to numbers 10 and 12 Federal street, corner of Milk street, the publication office being in Room 12.

The new location is easy of access, being directly opposite the Boston post office, nearly every line of street cars passing the building, and is on the direct route between the two union railroad stations. The offices on the fourth floor are readily reached by elevator, and a call from our friends and patrons will always be welcome.

WEEDS flourish in old wornout grass lands. Manuring and drainage encourage the grass, and discourage most kinds of weeds.

THE best legacy one can leave a son is a capacity for hard work, and a training which enables him to do well the kind of work he likes best.

GRASS grown in the open sunlight is better than that grown in the shade. It is best not to try to get a crop of hay from the orchard if the trees are good for anything.

GOOD live stock of all kinds is not over plenty in any section of the country, and indications point toward renewed activity in nearly all branches of stock raising. The present time is one in which the farmer should think of raising stock of his own if he has good strains to start from, and good judgment in the selection of the stock to be bought is more than ever essential.

SOMEBODY ought to wage a campaign against the bad wells on milk farms and elsewhere. Too many wells and cisterns seem to have been located under the impression that the nearer they could be brought to the barn and pig pen the better. On such farms malaria and bowel diseases are likely to be very common. The owner thinks the country is sickly, but the doctor winks at the well curb and says nothing.

No variety of pear is so much disputed as to its merits as the Keiffer. Some growers consider it worthless, and are regrafting all their trees, while others consider it the very best variety for profit. Something may depend on the soil and section. The quality seems to be best on light soils. The fruit should be kept on the tree as late as possible.

GAMBLING games at the cattle fairs must be outlawed. Anyone who sees such doings has a right to call upon any officer of the law to eject them from the grounds. A resolute protest at the manager's office is often effectual. The cattle fair gamblers have done a vast amount of injury both morally and financially. Every self respecting visitor should make himself a committee of one to suppress them. Many fairs need the service of a few vigorous kickers who are not afraid to take a little trouble to promote law, order and decency.

It is astonishing how much better a man knows how to do a thing after he has learned the reason why he does it. It pays to get right down into the first principles of agriculture, and to learn how plants grow, what the soil is made of, and how the animals are built. A man who has some knowledge of this kind is not likely to get carried away by hasty theories which look ridiculous at once to one who has gone below the surface of things. Farming is like a great building, in that it ought to rest on a rock foundation of facts that are facts.

ALTHOUGH the agricultural colleges afford the best and the aptest training for farmer's sons and others, it is a mistake to suppose that the training can be had without money and without price even by deserving and hard working students. In most of these colleges free tuition or scholarships are easy to obtain and the necessary expenses are light. Work which the students do on the college farm is paid for when it is of a productive kind and not merely to learn how. Some have earned enough in this way to pay for their board. Even then there are other necessary expenses, and even the most capable students ought to have in any of the agricultural colleges, at least $75 to meet the year's expenses. Some have worked their way and others will be able to do so, but every student cannot expect to earn enough to pay all his bills as he goes along and it will be wiser to give up the attempt and put most of his energies in getting the full benefit of his studies and class work.

CURRENT TOPICS.

The attempt of the Red Cross to carry food supplies to the starving people of Havana has met with failure. Miss Barton carried 800 tons of food from Santiago to Havana but Gen. Blanco refused to allow it to be landed, although she had authority from Washington to do so. As the cargo was consigned to no one in particular, Miss Barton was reminded that she was liable to a fine of $500 for entering the harbor under the circumstances. This fine she paid and left that port. Two million of rations sent as a gift from the United States to the poor of Havana were also refused by Gen. Blanco unless full duty was paid on them although thousands of women and children are begging in the streets and in the poorer quarters there is absolute starvation. The Spanish officials say they are able to relieve all distress in Cuba, but much suffering is reported from the interior districts. In Havana meat is seventy cents in gold a pound, and a pound loaf of bread twenty cents. Gen. Blanco told Miss Barton she could distribute food elsewhere in Cuba, provided the local authorities were willing, and she carried a supply to Matanzas where it was gladly received.

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The fleet of war vessels which reached Boston the latter part of last week was given a most enthusiastic reception, although it did not include any of those most active in the naval battles of the war. Its passage up the harbor was accompanied by an escort of steamers, tugs and yachts. The Massachusetts headed the fleet and when they were thrown open to the inspection of the public it received the most attention from the visitors, being crowded during all the hours given to the public. The parade through the streets of Boston on Saturday was joined in by many of the Jackies and the city did its best to show its patriotism and appreciation of the part they had played in the war just closed. The illumination Monday night was a brilliant sight, each vessel being hung with colored lights, and rockets and the search lights of the fleet added beauty to the scene.

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The visit of President McKinley to Camp Wikoff at Montauk, L. I., on Saturday, was productive of good results. Much pleasure was shown by the sick soldiers at the personal interest taken in their welfare by the President and his visit brought good cheer and encouragement.

The sick of the ninth Massachusetts met with a disaster on their way home from Camp Wikoff. Nearly two hundred were being brought in the steamer Lewiston to Boston in charge of the Massachusetts Volunteer Aid Association, but in a thick fog the steamer ran ashore near Point Judith. The soldiers were at once removed to Newport by means of a lighter which was fortunately near, but the damp fog chilled the fever stricken patients in the open boat and although everything possible was done for them on their arrival, it is feared that there will be several deaths from the exposure. The soldiers were transported the remainder of the way to Boston by a special train.

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The maintenance of garrisons in the indefinite future, after the conditions of peace have been permanently fixed, may not be chargeable directly as a part of the cost of the war, but will be one of its necessary consequences, says the Review of Reviews. It will be interesting to consider the probable amount of both actual war expenses and garrison expenses up to the close of the present fiscal year on June 30, 1899. It will then have been determined whether the Philippine Islands are to remain in the permanent possession of the United States, and it will be time to charge garrison service in our new dependencies and the increase of the navy to the permanent cost of the new foreign policy which may then have been adopted. If the direct war expenditures were $91,000,000 at the close of July and will be $25,000,000 more at the close of August, it is probable that they will have increased by $45,000,000 more during the two months of September and October. This will make the direct cost of the war—lasting for less than four months, but involving heavy expenditures for more than six months—$61,000,000.

The charges for garrison service for the eight months from the close of October to the close of June cannot yet be stated with precision, because the President has not yet determined how large a garrison will be required in any of the former Spanish colonies. It is a reasonable estimate, however, that 25,000 men at least will be required in each of the three leading colonies—perhaps a few less in the peaceful island of Porto Rico and a few more in Cuba or the Philippines. Nearly all of this force will be in excess of the former strength of the regular army, which will be returned to its frontier and coast stations. A part of the service will be performed by the regular army because of the increase of its membership from 25,000 to 61,000 men, but the net increase of force above the old peace establishment will probably be 75,000 men and may be greater. The navy will also be considerably increased over the peace footing of a year ago and will call for larger expenditures for officers, men, coal, and incidental equipment. It is hardly probable that these expenses, including those for the civil government of the colonies, can be kept much within $15,000,000 per month. For eight months this would add $120,000,000 to the amount already charged to the direct cost of the war, and would make its incidental cost up to June 30, 1899, $281,000,000. It may be cut a little below this, but in any case will hardly fall below $250,000,000.

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The opening of the Spanish cortes in Madrid was expected by some to be the occasion of sensational scenes but nothing out of the usual course transpired, the general public seeming indifferent, believing that Spain is in a position where it must accede to whatever demands the United States may make. Senor Sagasta insisted that all discussion on the peace terms in the cortes should be in secret session, inasmuch as Spain having only obtained a suspension of hostilities, indiscreet parliamentary language might interfere seriously with the diplomatic negotiations. The present Spanish governor of the Philippines reported to the government on its request for information that to assure the re-establishment of Spanish sovereignty over the islands, it would require a permanent army of 60,000 men, a fleet and endless quantities of materials.

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The Dreyfus case has been a topic of interest to the French public for four years, and, indeed, to the whole world. It has been full of sensational incidents, has threatened the stability of the French government and has led to the arrest and trial of others connected with the case. The subject has again been revived by the recent confession of a French officer, Col. Henry, followed by his suicide, of the forgery of an important letter used in the trial.

The facts of the case are these: On October 15, 1894, Capt. Alfred Dreyfus, an officer attached to the information bureau of the French ministry of war, was arrested on the charge of having sold secrets of state to a foreign power, that power being Germany. A letter was put in evidence said to have been written by Capt. Dreyfus to the German embassy. When arrested, Dreyfus declared his innocence and said he did not know to what the letter referred The letter was submitted to five experts in handwriting, three of whom said the accused had written it, while the other two declared it to be an imitation of his handwriting. These gave as their reasons the identical manner in which certain words were written without the usual changes in the formation of certain letters occurring in the handwriting of any man. Later, in unofficial proceedings at the instigation of Capt. Dreyfus's friends, the writing was submitted to twelve experts from different countries, and they were unanimous in agreeing that it was not the handwriting of Dreyfus. The verdict of guilty which was finally reached appears to have been brought about largely by a letter which was presented to the judges but communicated to neither Dreyfus nor his counsel.

The court-martial of Capt. Dreyfus began on Nov. 19, 1894. The trial was conducted with the greatest secrecy, so far as any one outside of the army was concerned. At the same time the German embassy issued a letter denying that anybody connected with it ever had a direct or indirect relation with Capt. Dreyfus or had ever made an effort to have him tried in secret instead of in open court. There was a sweeping denial in the German government's answer of the alleged betrayal of French military plans to the embassy in Paris. The diplomatic denial from Berlin availed nothing. A hot newspaper war between the journals of France and Germany was carried on, but no published or spoken word availed to change the issue.

Capt. Dreyfus was found guilty by a unanimous vote of the court-martial before which he was tried, on December 22, 1894. He was condemned to imprisonment for life and degradation from all military rank and honor. The ceremony of degradation was a tragic one, made the more so by his almost frantic protestations of innocence.

The efforts to secure the release of Captain Dreyfus from what his friends believed to be undeserved imprisonment gave rise to fierce factional feeling through the French republic. Paris and the larger cities were the storm centers. Captain Dreyfus's faithful wife, his brother and other friends, including Emile Zola, the French novelist, have made repeated but ineffectual efforts to have the prisoner's case reopened, which has resulted in a number of interpellations in the Chamber of Deputies and in the sentencing of M. Zola to fines and imprisonment owing to his having been convicted of libeling the officers of a court-martial who tried Count Esterhazy, a French officer who became mixed up in the later developments of the case.

The charge made by the friends of Dreyfus that his conviction was secured through unfair means by the military branch of the government aroused a bitter feud between the army and the civilians. The Zola trial brought to the front another feature of the remarkable case, which for the first two years was not prominent. There had been in Paris a fierce outburst of that anti-Semitic sentiment which for so long had its chief manifestations in Russia and Germany. Many times during the Zola trial this hostility was voiced by the shouts of the crowd in attendance, and physical violence was at no time a remote contingency.

This latest development may lead to a new trial for Dreyfus, and for that end his friends are working, and their efforts will probably be crowned with success.

Washington News.

It seems that the Germans, one way or another, are determined if it is a possible thing, to discourage American trade in their country. While they cannot be blamed for protecting themselves from the San Jose scale, they have exerted their rights to and beyond the limit in the matter of inspection and exclusion of American fruit and nursery stock, causing our merchants and exporters needless trouble and expense. A report received received August 31st at the State Department from Consul Barnes of Cologne, Germany, gives an interesting account of the methods employed by the Germans to exclude or hamper to the point of exclusion our hog product trade with that country. The question has been recently stirred up by the claim of health officers at Cologne that two sides of American bacon have been received in which evidence of trichinae were found. Consul Barnes learns through the medium of a society of German foreign meat importers, whose object is the protection and promotion of the import trade in meats and fat products, that during the last fifteen years there were officially confirmed in Prussia 3003 reported cases of illness from trichinae, 207 of which resulted in death. All these cases of illness and death could be traced to the eating of European pork, some of it examined and found free from trichinae, the rest examined or partly examined. In not a single of the 3000 cases could it be proved that the illness was caused by the use of American salted, pickled or tinned meat nor by smoked sausage. The statement holds good for all Germany. In confirmation of this fact, this society above mentioned has issued posters offering a reward of 1000 marks ($235) to the person who can prove that trichinae have been transferred to human beings by the consumption of American salted pork or smoked sausage. Yet, in spite of this remarkable record for the American hog; instead of Germany being glad to get an American product so good and wholesome and free from disease, whereas European pork is the opposite; she is doing and has done everything in her power, without leading to international complications to discourage and exclude this same American hog, even to at one time issuing an edict entirely forbidding importation. The inspection of American meats and sausage is much more rigid than the tests for the German home product, the American meat being twice inspected, once before leaving the United States and again on entering Germany; both times microscopically. In the inspection of American sausage a special and damaging process is applied which is not required of the German sausage. This process greatly injures its selling qualities. When in 1891 the edict against sausage and pork products from America was canceled, through the strenuous efforts of our representatives, no inspection of sausage and pickled pork was required until July 1, 1898. Since then both products are subject to inspection and this will result in the absolute exclusion of sausage and pickled pork or boneless ham from the German market. In the case of boneless hams, weighing from two to three pounds each, the cost of inspection amounts to what is equal to $3.57 per 220 English pounds. With the German duty added, making a total of $8.33 on 220 pounds of meat, it means the virtual prohibition of such products.

Other expedients also appear to be resorted to by self-constituted authorities, Consul Barnes states, in order to discourage and prevent the large consumption of American meats. The importing society referred to is contesting a case pending before a court in a town near Cologne, relating to a case of meat from America which was packed in borax. It seems that the municipality of Cologne issued in the daily papers a notice or warning to dealers that such meats should not be handled or sold by them, alleging its use to be detrimental to the health of the consumer. The burgomasters or mayors of several towns have exercised this power, and thus dealers in meats are afraid to handle or sell the prohibited products. This has been done, too, in spite of the fact that the Emperor alone has the power to prescribe the manner of packing or preparing human food. The importing society expects to be able to prove by eminent German professors that the use of borax for packing meats is not injurious to human life.

THE SHEEP SCAB.

The bulletin on the sheep scab, noted a fortnight hence in this letter, has made its appearance from the printer's hands. It is a publication containing so much genuine historical, preventive and curative information of the disease, that it should be sent for by every sheep raiser. The sheep raisers of the country are, as a class, intelligent and progressive men and most of them fully recognize the necessity of combining to eradicate this disease which causes such immense annual losses to careless farmers. In many cases, however, especially among owners of small flocks, there are many erroneous ideas prevalent regarding the exact nature of the disease and the methods for eradication. It is to meet the demand for exact information on this subject that this bulletin is issued by the Department of Agriculture. In it will be found descriptions of the various kinds of scab, reference to conditions which may be taken for scab, a description of various kinds of dipping plants for use on small or large farms and directions for making homemade dips. The bulletin is full of cuts and pictures showing the scab as it first appears on the sheep and in its later stages and also magnified specimens of the mites themselves which do the damage. The most common mite is easily detected with the naked eye. The mites prick the skin of the animal to obtain their food and probably insert a poisonous saliva in the wound. Their bites are followed by intense itching, with irritation, inflammation and the exudation of serum and the formation of crusts or scabs under and near the edge of which the parasites live. As the parasites multiply they seek the more healthy parts, spreading from the edges of the scab already formed, thus extending the disease. The sheep become restless, biting and scratching themselves and rubbing against other members of the flock. Heat irritates the itching. The changing in the skin result in a falling of the wool, at first slender "tags" becoming detached, the fleece assuming the condition known as "flowering." Scabs fall and are replaced by thicker and more adherent crusts. The skin finally becomes more or less bare, parchment-like, greatly thickened, furrowed and bleeding in the cracks. Ewes affected may abort or bear weak lambs. The common scab is extremely contagious and the chances of recovery under natural causes are very slight, the disease sometimes claiming as many as 80 per cent of the flock, where no treatment is given. With proper attention to hygienic conditions, however, the bulletin states, and thorough dipping, a positive cure can be guaranteed.

HOMEMADE DIPS RECOMMENDED.

The Department warns sheep raisers, and especially those unfamiliar with the subject, against unknown dips, which are advertised to work extravagant results and recommends that if proprietary dips are to be used only those be used which state plainly the formula used in their manufacture. The Department recommends homemade dips and gives several formulas with which excellent results have been attained. Tobacco, sulphur and lime are the three principal ingredients. The proportions of the dip known as the Rutherford dip are as follows: Tobacco leaves, one pound; flowers of sulphur, one pound; water, six gallons. No lime is used in this mixture. The advantage of this dip lies in the fact that two of the best scab remedies, *i. e.*, tobacco, and sulphur, are used together, both of which kill parasites, while the sulphur remains in the wool and protects for some time against reinfection. As no caustic is used to soften the scab, heat must be relied upon to penetrate the crust. There is at present a great prejudice against certain of the lime-sulphur dips and other dips, but these emanate largely from the agents of patent or proprietary dips who desire to sell their goods. The following complete directions for preparing the above tobacco-sulphur dip are valuable:

1st. Infusing the tobacco: Place one pound of good leaf or manufactured tobacco for every six gallons of dip desired in a covered boiler of cold or lukewarm water and allow to stand for twenty-four hours; on the evening before dipping bring the water to near boiling point (212 degrees Fahrenheit) for an instant, then remove from the fire and allow to stand over night.

2nd. Thoroughly mix the sulphur (one pound to every six gallons of dip desired) with the hand in a bucket of water to the consistency of gruel.

3d. When ready to dip thoroughly strain the tobacco infusion from the leaves by pressure, mix the liquid with the sulphur gruel, add enough water to make the required amount of dip and thoroughly stir the entire mixture. All things considered the department believes this dip as good as any known at the present time. GUY E. MITCHELL.

EVERY now and then some middle-aged professional or business man seeks advice about taking a farm. He usually has a little money saved and thinks he would like to make a change. If he merely wishes to make a country home with no idea of making a profit from farming the practice is to be commended. But few men beginning at the age of forty or later can make a business success of any branch of agriculture. Life in an office or store, has so weakened the physical powers that the man is unfitted for hard work while he lacks sufficient experience to manage profitably the work of others. The wrench to his physical system and habits of life will be more than he can stand. Such a person would be wiser to confine his ambition to make the most of a small place, and to keep his money at interest.

Agricultural Fairs.

The agricultural fairs this season have thus far been favored for the most part with good weather, although unseasonably warm.

The Eastern Maine Fair at Bangor had a very successful exhibition with large entries and crowds in attendance. Much of the stock exhibited at the New England Fair at Portland was carried to Bangor and entered there. Jerseys were shown by Messrs. B. F. and F. H. Briggs of Auburn, Me., S. M. King of So. Paris, C. A. Garland of Bangor, J. F. Bukell of Bowdoinham, and Sieger Bros., Bowdoinham. F. J. Libby of Richmond showed Holsteins. Herefords were shown by Thos. G. Burleigh of Vassalboro, B. B. Perkins, Skowhegan and W. E. Eaton, So. Solon. Two herds of Devons were exhibited by L. H. Maxim of West Sumner and G. G. Gilman of Solon. T. G. Burleigh of Vassalboro showed, also a herd of Sussex. S. C. Hall of Kennebunk showed twenty Guernseys—a family selected and bred with great care. There are in this lot five cows and many young animals. Mr. Hall's original animals came from the herd of Samuel Verplanck, Fishkill-on-Hudson, New York. G. C. Foster, North Cornville, showed a herd of eight, the foundation animals being from the herds of N. T. Bowditch, Framingham, Mass., and J. B. Palmer, Jewett City, Conn. J. F. Buker, Bowdoinham, had a herd of five led by a bull two years old—a fine looking lot of this breed.

Shorthorns were exhibited by J. V. Fletcher, Anson—five head from the herd of Colwell Bros., Hoosick Falls, N.Y. Mr. Fletcher was a prize winner at the New England fair at Rigby park. R. and C. D. Waugh, Starks, also exhibited a herd of seven head of this breed, a selection from their home herd of fourteen.

There were two herds of Polled Angus—A. J. Kenniston, Simpson's Corner had a herd of thirteen. The other exhibitor in this class was Melvin Allen, North Dixmont, who had eight head.

Six thoroughbred Ayrshire heifers were exhibited by Herman Corbett, Farmington.

The sheep and swine exhibit was much larger than in previous years and included some fine animals.

The exhibition of horses was worthy of a Maine fair, one of its features being that from Sunnyside Farm, Waterville, C. H. Nelson, proprietor, including Nelson.

IF our good homes were done away with the roughest mining camps of the Rockies and Klondike would become a type of villages and towns, but given good homes and their religion, morals, intellects and physical health in a measure take care of themselves. Just as pennies saved make the dollars, with still better homes than we now have civilization will take a decided step in advance; thus the future depends largely on the women who make the homes. If our women are learning to serve better food, to provide more airy, sunny, healthful rooms, and learning better to fulfill the duties of motherhood, then as we all hope and expect, the next generation will be an improvement upon the present. The solid and really essential progress of the nation must begin in the home.

MARKETS.

BOSTON LIVE STOCK MARKET.

Cattle steady.—Sheep unchanged.—Hogs as last week.—Veal calves in active demand. —Milch cows in fair sale. Horse market improved slightly

Reported for Mass. Ploughman.

Week ending Sept. 7, 1898.

Amount of Stock at Market.

	Cattle.	Sheep.	Shotes.	Hogs.	Veals
This week,	3,604	6,841	133	31,608	1,402
Last week,	3,548	10,749	123	25,818	1,277
One year ago,	3,844	6,547	135	31,599	1,913
Horses.... 300					

CATTLE AND SHEEP FROM SEVERAL STATES

	Cattle.	Sheep.		Cattle.	Sheep
Maine........	196	248	New York		
N. Hampshire	157	163	Rhode Island		
Vermont.....	119	709	Western..	2,553	2,750
Massachusetts	186	31	Canada....	393	3,000
Total.........................				3,604	6,841

CATTLE AND SHEEP BY RAILROADS, ETC.

	Cattle.	Sheep.		Cattle.	Sheep
Fitchburg	1,561	2,820	Eastern....	196	3,283
Lowell	129	707	B. & M.....		
B. & A.....	1,638		Foot & boats		
Total.........................				3,604	6,841

Values on Northern Cattle, etc.

Beef.—Per hundred pounds on total weight of hide, tallow and meat, extra, $6 00@6 25; first quality, $5 50@5 75; second quality, $5 00@5 25; third quality, $4 00@4 75; a few choice single pairs, $6 50@7 00; some of the poorest, bulls, etc., $3 00@3 50.

Working Oxen.—$60@130; handy steers, $50@100, or much according to their value for beef.

Cows and Young Calves.—Fair quality, $20@38; extra, $40@48; fancy milch cows, $50@60; farrow and dry, $12@24.

Stores.—Thin young cattle for farmers: yearlings, $8@18, two-year-olds, $12@28; three-year-olds, $20@38.

Sheep.—Per pound, live weight, 2½@3c; extra, 3¼@4½c; sheep and lambs per head, in lots $2 50@4 75; lambs, 5@5½c.

Fat Hogs.—Per pound 4@4¼c, live weight shotes, wholesale... ; retail, $1 50@5 50; country dressed hogs, 5½c.

Veal Calves.—3@6c ℔ lb

Hides.—Brighton, 7½@7¾c ℔ lb; country lots 7@7½c.

Calf Skins.—65c@$1.35. Dairy skins 30c to 40c.

Tallow.—Brighton, 3@3½c ℔ lb; country lots 1½c.

Pelts.—30@50c each; country lots. 30@50c.

ARRIVALS AT THE DIFFERENT YARDS.

	CATTLE.	SHEEP.	HOGS.	VEALS.	HORSES
Watertown,	1,690	6,527	15,048	597	225
Brighton...	1,914	314	6,560	805	75

General Live Stock Notes.

Supplies of live stock are in full complement some consigned direct to butchers. Cattle numbered 3664 head including all the western export. Market prices held steady. The lamb market also holds a steady position not as active as last week, wherefore the less in number. Canada did not turn out one-half the supply of last week. Owner went in too steep a week ago and could not get their price, therefore the light run. Fat hogs at unchanged prices and a good quality. The milch cow trade is somewhat weak, especially on low grades. The better class sell fairly well at steady prices. Horse market is quiet and has been through the hot weather; fine horses at $175 upwards. Common grades $40@$90.

Export Traffic

	Cattle.	Sheep.
Maine. At Brighton.		
P A Berry....	7	
Libby Bros	40	65
Thompson & Hanson..	23	100
M D Holt	34	1
J M Philbrook	12	58
Harris & Fellows....	36	20
O W Rolfe	7	
Wardwell & McIntire	21	4
F L Howe	15	
New Hampshire. At Brighton.		
A C Foss	35	
At Watertown		
F Farwell	7	30
G W Harris	19	
Moulton & Jones	35	
Foss & Locke	9	2
C A Eastman	21	
Breck & Wood....	40	
W F Wallace	61	1
Vermont. At Watertown.		
W Ricker & Son	15	500
M G Flanders	7	18
Fred Savage	18	20
W A Farnham	20	11
John Ryon	10	40
B M Ricker		20

	Cattle.	Sheep
S M Flint		50
B H Combs	29	
Balance on late train	20	50
Canada At Watertown		
J A Hathaway	375	
J Gould	18	
Consignments		3000
Massachusetts. At Watertown.		
J S Henry......	13	
W A Bardwell	11	
At Brighton		
J S Henry	52	2
R Connors	22	
Scattering	80	
C D Lewis	8	29
Western At Brighton.		
J White & Co	18	
A Davis & Co	18	
S S Learned	136	
Sturtevant & Haley	70	
Morris Beef Co	432	
Swift Beef Co	882	
At Watertown.		
G A Sawyer	36	
Western	821	2750
J A Hathaway	140	

	Hogs.	Calves.
Maine. At Brighton.		
P A Berry		20
Libby Bros....		12
Thompson & Hanson		40
M D Holt		100
J M Philbrook		64
Harris & Fellows		107
O W Rolfe		9
Wardwell & McIntire		60
F L Howe....		10
New Hampshire Brighton.		
A C Foss		8
At Watertown.		
F Farwell	4	30
Geo Harris	10	
Jones & Mouiton	15	40
Foss & Locke		3
Breck & Woods		50

	Hogs.	Calve
W F Wallace	1	120
Vermont. At Watertown.		
W Ricker & Son	100	50
M G Flanders	30	30
Fred Savage	2	40
H N Jenne		14
WA Farnham	30	25
John Ryan	30	30
B M Ricker	13	10
S M Flint		20
B H Combs		15
Balance on late train	50	75
Massachusetts. At Watertown.		
J S Henry	13	38
W A Bardwell		7
At Brighton.		
J S Henry		63
R Connor		17
Scattering....	150	175
C D Lewis		12

The advance on export cattle is largely on top grades, the trade slow with fair demand. And at Liverpool 10½c. The rates higher at London, being 11@11½c. As the market will not be heavily supplied for the next two weeks we anticipate a slight rise. The steamer Cambroman does not sail until Wednesday.

Shipments and Destinations.—On steamer Armenian for Liverpool 733 cattle by Swift Beef Co, and 63 horses. On stdamer Londonian for London 391 cattle by Morris Beef Co.; 203 by Swift Beef Co. and 23 horses. Steamer Hibernian for Glasgow 300 cattle by J A Hathaway. On steamer Roman for Liverpool Morris Beef Co. 227 cattle; J A Hathaway 75 Canada cattle; 18 by J Gould.

Horse Business.

Not much activity to the market but dealers anticipate a good fall demand, many not buying the first of the season will buy later on and pay good prices. At Snow's combination sale stable light sales are exporting a few horses nearly every week. Prices rule steady. At L H Brockway's sale stable had good drive and draft horses on sale with second hand. On western sold near to 100 head in the week. 1 pair chunks at $335, some good chunks at $130@$135. At A W Davis, Northampton St. sale stable sales considered good having good style horses; on sale for drive, coach, single and in pairs, also good saddle horses Prices from $100@$550. At Welch & Hall's sale stable a good demand for family and good big horses, at firm prices. At E Ham & Co, sale stable light arrivals and moderate sales.

Union Yards, Watertown.

Tuesday, Sept. 6, 1898.

The arrivals of cattle very much the same as last week which takes into account the exports of the week. Cattle from the west cost unchanged prices, and equally as good in quality. Western cattle seem to arrive all right even through this hot weather but they are well cared for on the way. The tone of the market for beef cattle does not seem to improve to any extent, the weather is too hot to start up much life in the beef market. Grass fed cattle will soon be upon us.

Cattle Sales.

C A Eastman sold 18 steers of 1200 lbs each at a little better than 7c, D W. W F Wallace sold 3 beef cows of 2910 lbs at 4½c, 1 ox of 1640 lbs at 4c J A Hathaway sold 25 cattle of 1550 lbs at 5½c, 20 of 1530 lbs at 5¼c, 20 of 1530 lbs at 5¾c, 25 of 1500 lbs at 5c, 25 of 1475 lbs at 4¾c, 30 of 1450 lbs at 4¾c.

Maine Cattle, Beef and Store

The contents of the stock train from the East was 24 oxen and bulls, 172 milch cows 530 calves and 248 lambs. The milch cows predominate for large stock calves find a ready sale. Some good beefs found their way to market. P A Berry had 8 oxen on sale last week which should have been mentioned, they weighed 1900 lbs each were decidedly the best from the east were sold to J A Hathaway for home trade at top, price for eastern cattle near to 5¼c L W. Foss & Locke were from a neighboring state 11 head in all, av near to 1700 lbs av 4¾@5¼c lb.

Sheep Houses.

After the experience of last week when spring lambs were selling at a decline of ½c lb, dealers were ready to let well enough alone, as the lambs are doing well in the country and increasing in weight every day, and if butchers want them at fair prices they will send them in. Arrivals light this week and market steady.

Thompson & Hanson sold 100 Aroostook Co lambs of 70lbs at 5½c. Wardwell & McIntire sold 4 Cossetts these 4 lambs have been sucking milk from a cow and were of choice quality, sold at 5¾c. Foss & Locke sold lambs at 5c.

Milch Cows and Springers.

The supply of cows is fully up to the average. They have arrived freely all through the season and fair prices are obtained where the quality was any ways good. Common grades are slow of sale at low prices.

F L Howe sold 2 springers at $42 each. O W Roffe sold 7 choice cows at $55 each. P A Berry sold 2 milch cows $40@$48, 1 choice Jersey to Inspector Denning at $60. Libby Bros sold 9 milch cows at $40@$50. Thompson & Hanson 7 cows at $25@$45.

Veal Calves.

Demand active and butchers were paying all they were worth. The Rutland, Vt, calves go to New York which shortens our supply and raises prices. Not much of anything selling at less than 6c, and we heard of sales at 6½c.

Thompson & Hanson sold 35 calves 140lbs at 6c. Wardwell & McIntire sold 62 calves at 6c of 120lbs. J M Philbrook 57 calves of 135lbs at 6c, 6 at 4c. J S Henry sold at 6c. P A Berry sold 16 of 120lbs at 6c.

Fat Hogs.

Supply heavy and prices steady the western hogs at 4@4¼c delivered here L W. Country hogs at 5½c D W.

Live Poultry.

Near 6 tons from Maine mostly by eastern steamers and sent in to commission houses. Cost not over 8@9c lb for mixed lots.

Boston & Albany Yards, Brighton.

WESTERN BEEVES.

PRICES lb CWT. ON THE LIVE WEIGHT.

Extra................................	$4 75@5 00
Choice	$5 50@5 75

Brighton, Tuesday and Wednesday.

Sept. 6 and 7.

88 car loads of Western cattle, 13 cars of eastern mixed stock and a few cars from western Massachusetts. The market for cattle as we found it last week; the finest at strong prices and common grades weak in price. Butchers are careful about buying during the hot weather, but as the weather improves they will have more courage to invest.

Foss & Locke sold 2 cattle of 3460lbs at 5c, 2 of 3470lbs at 5¼c, 2 of 3340lbs at 4¾c, 2 of 3400lbs at 4¾c, 2 of 3240lbs at 4¾c, 1 of 1830 lbs at 4¾c. C A Eastman sold 1 bull of 990 lbs at 2¾c. P A Berry sold his 8 choice cattle last week at 5½c.

Late Arrivals and Sales.

This has been a much better day for milch cows The continued hot weather has told on cows in this vicinity and the yield of milk is decreasing. Good cows selling well at firm prices $45@60, Common cows $20@$38.

Libby Bros sold 1 20 quart fancy cow $95, 2 good Jerseys $50 each Springers $40@$45 Wardwell and McIntire sold 15 cows and $25@$55 M D Aolt & Son sold 23 cows $35@$65, 11 cows $30@$38. R Connors sold cows $40@$60 W Mills had 10 cotte sold 3 springers at $38. A C Fost 1, 1 1-2 year old bull $25, 2 cows for $40 each. J P Day sold 19 head of cattle 2¼@3½c, 1 springer $30. O H Forbush sold 7 cows 2½@4c, 940@1280 lbs. Mr. Dennen bought 2 of the best cows yn the market,

Store Pigs.—Quiet market. Small pigs $1 50@$2.50. Shotes $3@$5.50

Miscellaneous.

Hides.—Brighton, 7½@7¾c ℔ lb; country lots 7@7½c.

Tallow.—Brighton, 3@3½c ℔ lb; country lots 1½c.

Calf Skins.—65@$1.35.

Dairy Skins.—30@40c.

Pelts.—30@50   G. J. FOX.

Boston Provision Market.

The pork market continues quiet, with prices unchanged

Hams are quiet with lard steady
Pork, long and short cuts ℔ bbl, $13@13 50.
Pork, light and heavy backs, $12@13 00
Pork, lean ends, ℔ bbl. $14 50
Tongues, beef ℔ bbl, $23.
Tongues, pork, ℔ bbl, $17.
Beef, pickled, ℔ bbl. $10 50@11 50
Shoulders, corned and fresh, ℔ lb 7c.
Shoulders, smoked, ℔ lb 7½c.
Hams ℔ lb, 9@9½c.
Bacon, ℔ lb 9@9½c.
Pork, loose, ℔ lb 7c.
Briskets, salt, ℔ lb 7½c
Ribs, fresh, ℔ lb 9c.
Sausages, ℔ lb 7½c.
Sausage meat ℔ lb 6½c
Lean sausage meat, ℔ lb 7c.
Blade meat, ℔ lb 7½c.
Lard, in tierces, ℔ lb 6c.
Lard, in pails, ℔ lb 6½@7c.
Lard, in pails, pure leaf, ℔ lb 7½@8¼c.

Boston Produce Market.

Wholesale Prices.

Poultry.

Fresh Killed.

The demand is quiet but prices hold about the same. Choice western fowls are quotable at 10@10½c. with western chickens at 9@11 Choice northern and eastern chickens and fowls steady at quotations. Choice eastern ducks selling fairly at 10c.

Northern and Eastern—	
Chickens, choice large, ℔ lb	15@17
Chickens, common to good	10@14
Fowls, extra choice	11@12
Fowls, common to good	8@10
Chickens Phila. good to choice	@
Ducks spring ℔ lb	9@10
Pigeons, tame ℔ doz	1 00@1 25
Western, iced—	
Turkeys, hens	10@10½
Turkeys, toms	9@10
Chickens, good to choice ℔ lb	9@11
Fowls, ℔ lb	10@10½
Ducks	5@
Old cocks	6@

Live Poultry.

The demand quiet with fowls at 9c, and chickens cleaning up slow at quotations.

Fowls ℔ lb	8@9
Roosters ℔ lb	5@
Spring Chickens ℔ lb	8@10

Butter.

Choice butter holds steady in price, but the hot, muggy weather unfavorably affects arrivals while it also tends to limit the demand. About 19c is yet the top for northern New York creameries, but fancy Vt. and N. H. in assorted sizes range at 19@19½c, mostly at the lattes price. Extra west. has a moderate sale at 18½@18¾ for assorted sizes, with large ash tubs at 18¼@18½c. Firsts are in full supply, quiet and easy. Imitation creamery and ladle goods in moderate demand. Fine box and print butter steady at quotations.

NOTE.—Assorted sizes quoted below include 20, 30, 50 lb. tubs only.

Creamery, extra—	
Vt. & N. H. assorted sizes	19@19½
Northern N. Y., assorted sizes	19@
Northern N. Y., large tubs	18½@19
Western, asst. spruce tubs	18½@18¾
Western, large ash tubs	18¼@18½
Creamery, northern firsts	17@18
Creamery, western firsts	17@17½
Creamery, seconds	15@16
Creamery, eastern	17@18
Dairy, Vt. extra	17@
Dairy N. Y. extra	16@
Dairy, N. Y. and Vt. firsts	14@15
Dairy N. Y. and Vt. seconds	13@
Dairy, N. Y. and Vt. low grades	13@
Dairy, western	13@14
West. imitation creamery, small tubs, extra	15@
West imitation creamery large tubs firsts	14@15
" imitation creamery seconds	13@
" ladle firsts	13@
" ladle seconds	12@
Boxes	
Extra northern creamery	@20
Extra western creamery	@19½
Extra dairy	17@18
Common to good	14@16
Trunk butter in ½ or ¼ lb prints	
Extra northern creamery	@21
Extranorthern dairy	@19
Common to good	15@16
Extra western creamery	@20

Cheese.

No material change in the market, trade ruling quiet, with prices about steady Sales of fine northern continue in small lots at 7½@8c. Fair to good grades quiet at 6½@7c Western twins and Ohio flats in light supply and firm at quotations.

Liverpool quot. white 37s, 6d.

New York, small, extra ℔ lb	7¾@8
" " first ℔ lb	6½@7
" " large extra ℔ lb	@7½
Vermont, small extra ℔ lb	@7¾
" firsts ℔ lb	6@7
" seconds ℔ lb	5@6
Part skims ℔ lb	@
Western twins, extra	7½@8
Sage cheese, extra, ℔ lb	7@8

Eggs.

The market is well supplied and sales rule moderate, due in part to the unfavorable weather. This causes an easier feeling to prevail, although the general range of prices is about the same. Michigan nave to be very fancy to exceed 15½c. Western sell generally at 15c, with a few of the best northwestern at 15½c. Refrigerator stock continues in limited demand at 13½@14½c as to quality.

Nearby and Cape fancy ℔ doz	20@22
Eastern choice fresh	16@18
Eastern fair to good	13@14
Vt. and N.H. choice fresh	16@18
Western fair to choice	14@15

Potatoes

The range of sales at the road yards was lower, about 38c being the top of the market, with the range down to 30@35c. Barrel stock quiet at $1 25,

Native Rose and Hebron ℔ bbl	1 25@
Aroostook Co. Rose & Heb. ℔ bush	37@ 38

Sweet Potatoes.

The market is easier and about $1 75 covers price for best Virginia, with most sales of eastern shore at $1 50, Best Jersey double heads at $2.

Va. extra yellow ℔ bbl	1 50@1 75
Va. fair to good yellow	1 25@1 50
N. C. yellow ℔ bbl	1 25@1 50
Jersey extra double head ℔ bbl	2 00@

Green Vegetables.

Choice onions are a little firmer and best lots are now quoted at $1 25@1 50. Cabbages a little firmer, Tomatoes in full supply.

Beets native ℔ bushel	25@40
Cabbage ℔ bbl. crate—	
Native ℔ 100	3 50@4 00
Carrots ℔ bu	30@40
Cress, ℔ bunch	.04@ .05
Celery ℔ doz	75@
Lettuce, hot house ℔ box	35@40
Onions, Native, ℔ bush box	40@50
Onions, western ℔ bbl	1 00@1 25
Onions, native yellow ℔ bbl	1 25@1 50
Parsnips ℔ bu	
Parsley, ℔ bu	15@ 20
Shell Beans, ℔ bu	1 00@
Radishes, ℔ box	40@50
String beans—	
Native wax ℔ bush	65@75
Common green ℔ bush	@65
Squash, native marrow, ℔ bbl	60@
Spinach, native ℔ bush	25@
Turnips, Russia, ℔ bbl	1 25@1 50
Turnips, yellow ℔ bbl	1 00@1 25
Turnips, St. Andrews, ℔ bbl	1 00@
Tomatoes, native ℔ bush	35@50

Domestic Green Fruit.

The weather continues hot and it unfavorably affects the sale as well as the quality of the goods. About the only demand for apples is for choice fruit, fancy Gravensteins yet ranging up to $2 50, with other fruit down as to quality. Very few blueberries. Grapes are coming along a little more freely and prices are lower except for fancy Delawares. Peaches are coming forward in all kinds of packages and conditions, and prices are rather lower. Pears are more plentiful and sell lower. Plums quiet. Watermelons less plenty, and large will sell higher. Muskmelons are moving slowly, much fruit being overripe.

Apples—	
Common and windfalls ℔ bbl	50@1 00
Williams, hand picked ℔ bbl	1 75@2 25
Astrachan, hand picked ℔ bbl	1 00@1 50
Gravenstein, hnd pkd ℔ bbl	2 00@2 50
Porters and Pippins ℔ bbl	75@1 25
Golden Sweet, ℔ bbl	1 00@1 50
Blueberries—	
New Brunswick and N. S. ℔ qt	8@12
Muskmelons—	
Balt. ℔ crate	50@
Balt. Gems, ℔ bskt	20@
Prov R. I large ℔ bbl	75@1 00
Hackensack ℔ bbl	75@1 00
Black Jap ℔ bbl	1 25@1 50
Peaches—	
Michigan ℔ carrier	1 00@
Md. and Del. ℔ bskt	50@ 75
Jersey ℔ bskt	50@ 85
Mich. ℔ bush basket	75
Pears—	
Bartlett, ℔ bbl	2 00@3 00
Clapp's Favorite ℔ bbl	2 00@2 50
Plums—	
Choice large eating, 8 lb. bskt	30@
Common green and blue, 8 lb. bskt	20@ 25
Grapes—	
Hudson River—	
Delaware ℔ carrier	1 00@1 25
Niagara ℔ carrier	65@ 75
Moors Early ℔ carrier	65@1 75
Champion ℔ carrier	50@
Moore's Early, pony bskt	8@10
Champion, pony bskt	7@
Concord, ℔ carrier	50@ 60
Watermelons—	
Large	$15 00@18 00
Med.	$ 8 00@12 00

Tallow.

Rough, ℔ lb	1½@2
Rendered	2½@3

Hides and Pelts.

Steers, over 75 lbs	7½
Cow all weights; steers under 75 lbs	7½
Bulls	6¼
Hides, south. light green salted	8½@9
" " dry flint	15@15½
" " salted	14@14½
" buff, in west	10@10¼
Calfskins, 5 to 12 lbs each	65@1 35
" overweights, each	1 50@1 60
" south, flint dried ℔ lb	11@12
" " salted ℔ lb	9@10
Deacon and dairy skins	30@40
Shearlings each	10@15
Lambskins each spring	25@40
Pelts, each	60@1 00

Peas.

Choice Canadian ℔ bu	90@
Common " "	65@75
Green peas, Western choice	80@85
Green peas, Scotch	90@95

Dried Apples.

But little doing in evaporated apples, sales are in small lots at unchanged prices.

Evaporated, fancy to extra fancy	9½@10
Evaporated, choice	9¼@
Evaporated, prime	8½@9
Sun dried, ℔ lb	3@4

Grass Seeds.

Trade quiet prices steady.

Timothy, ℔ bu	1 45@1 50
Clover, ℔ lb	6@7
Red Top, western, ℔ 50 lb sack	@2 00
" fancy recleaned, ℔ lb	11@12

Beans.

No material change in the market. There is a full supply offering and a light demand. Best marrow pea are selling as wanted at about $1.25 Yellow eyes and red kidneys moving slowly at quotations.

Pea, N.Y. & Vt. small H. P.	@1 50
Pea, marrow, choice, H. P	1 25@
Pea, screened	1 10@1 20
Pea, seconds	90@1 00
Mediums, choice hand picked	1 25@1 30
Mediums, screened	1 10@1 20
Mediums, second	@1 00
Yellow eyes, extra	1 40@1 45
Yellow eyes seconds	1 20@1 30
Red Kidney	1 75@2 00
Lima beans, dried ℔ lb	3½@4

Hay and Straw.

The demand for hay continues slow, but the market holds steady for choice grades, and such is fairly firm in price. Lower grades are yet dull and weak, with slow cleaning up of supplies Rye straw continues quiet but the market is steady.

Hay, prime, large bales	14 00@15 00
" " small "	13 00@13 50
Hay, No. 1, ℔ ton	11 00@12 00
" " 2 "	10 00@11 00
" " 3 "	7 00@ 8 00
" fine choice	8 00@ 9 00
" rejected, per ton	6 00@ 7 00
" clover mixed, ℔ ton	8 00@10 00
" clover, ℔ ton	7 00@
" swale, ℔ ton	7 00@ 7 50
Straw prime rye	7 00@ 8 00
Straw, oat per ton	6 00@ 6 50
Straw tangled rye	6 50@

Flour and Grain.

Flour.—The market quoted steady.
Spring patents, $4 25@5 00
Spring, clear and straight, $3 20@4 50
Winter patents, $3 65@4 50
Winter, clear and straight, $3 25@4 00

Oat Meal.—Quoted quiet, $3 70@4 10 ℔ bbl for ground and rolled, and $4 10@4 30 for cut

Corn Meal.—The market is quiet at 75@77c ℔ bag, and $1 70@1 75 ℔ bbl; granulated, $2 30@2 45 ℔ bbl; bolted $2 30@2 45.

Graham Flour.—Trade continues quiet, with the market quoted at $3 00@3 55 ℔ bbl.

Rye Flour.—The market is quoted at $2 95@3 35 ℔ bbl.

Corn.—Demand is quiet with market steady.
No 2 yellow, spot, 39c.
Steamer yellow, spot, 38½c.
Steamer and No 3 corn, 38c.
No. 2 yellow 38¾c.
No. 3 yellow 38½c.

Oats.—Quiet but steady
Clipped, fancy, spot, 33½c.
No. 2 clipped, white 33c.@
No. 3 clipped, white 31@32½c.
Lower grades, spot, 30@32c.
Clipped, to ship, 33½c @
Clipped white, old, 30½@31c.
New, 28½@29½c

Millfeed.—The market is lower, with prices steady to ship.
Middlings, sacked, $13 25@$15 25
Bran, spring, $12 50@12 75
Bran, winter, @$13 25
Red Dog, 18 50@
Mixed feed, $13 75@15 25.
Linseed meal, $26 00.
Cotton seed meal to ship, $21 75@

Malt.—The market is steady with trade ruling dull.
State grades, 6-rowed, 58@63c.
State, 2 rowed, 53c.
Western grades, 53@60c.

Barley—Quiet demand, with prices nominal at 50@58c. for No. 2 6 rowed State, and 42@45c for No. 2 2-rowed State.

Fresh and Shell Fish.

The market continues quiet, with prices steady. Oysters in better demand. Lobsters quiet, with clams steady. Market cod, per lb, 2½@3c; large, 3½@4c; steak 5½@6c; haddock, 2@2½c; halibut white, 14@15c; gray, 11@12c; East salmon, 27@28c; Ore do, 17@18c; bluefish, 6½@9c; cusk, 2@2½c; steak, 3@3½c; hake, 2½@3c, small, 1½@2c; pollock 1½@2c; steak, 2¼@3c; fresh mackerel, each 23@25c for large, and 4@4¼ for small butterfish, 8@9c; scup, 4@5c; swordfish 01@11c; oysters, Norfolk standards, per gal, 90c Prov. River, $1.15; Stamfords, fresh opened selects, $1.25; shell, per bbl, 6.50; ℔ bu $1.75; Blue points, per bbl $7,25; per bush $2.50; lobsters, live, per lb, 13c; boiled, 15c; clams per gal, 50c.

Foreign Butter and Cheese Market.

Cable advices of this date to George A. Cochrane from the principal markets of Great Britain give butter markets as more active and the decline last week has been recovered. Danish is selling at 20 and 21c. Finest Canadian in boxes 19 and 20c. Medium grades neglected and low grade less active at 13 and 15c.

Cheese markets quiet with buyer, indifferent and taking sparingly of current arrivals which is causing accumulations in receivers hands. American and Canadian offering at 8 1-4 and 8 3-4c.

Foreign Apple Market.

Cable advices of the 5th inst. from Liverpool to George A. Cochrane report the sale of apples per SS Canada as follows:

Orange Peppins at 8 shillings to 10 shillings ($2.00 to $2.50.) Porters 5 shillings to 6 shillings ($1·25 to $1.50.) Gravensteins 12 shillings, sixpence ($3.12.) The landing condition of the fruit was generally poor, especially the Orange and Porters. There is a scarcity of dessert apples.

The Wool Market.

Reported by WENDELL P. YERRINTON, 6 Leather Sq, Boston.

Market even less active than a week ago, though we look for a firmer and better market in the near future Prices are somewhat unsettled and the only market value is just what one is able to obtain when the customer appears; still there is very little wool to be had at under the market quotations which remain unchanged.

⅜.... Unwashed fleece	21 to 23c
¼.... " "	20 to 21c
Coarse " "	18 to 20c
Fine " "	16 to 18c

For an opportunity to buy seed rye see advertisement in another column.

What to See in the Mountains on the Low Rates.

That the mountain regions of northern New Hampshire are famous is evidenced by the thousands of visitors who annually seek that section for a season of recreation and rest. It matters not to what portion of the mountain region you go, for you will never be dissatisfied, as the variety and extent of scenic attractions is unlimited and your expectations, no matter how ambitious, are more than fulfilled.

Several hundred square miles of mountain peaks comprise the White Mountain region, and of the scores of resorts located in its midst space permits mention of but a few of the largest.

Many consider the vicinity of Dixville Notch the most beautiful part of the White Hills. The view of the surrounding territory is very beautiful, for lakes, mountains, brooks and ravines are everywhere around, making an interesting landscape. In the Franconia region one finds many old though beautiful attractions. There the Old Man of the Mountain stands guard over a galaxy of wild though particularly impressive bits of nature work. There is Cannon Mountain and Eagle Cliffs and Mt. Lafayette and Agassiz and Cleveland, while a short way off is Cherry Mountain, The Twins, and the Presidential Range, while natural curiosities like The Basin, The Flume, The Pool, and Echo Lake and Profile Lake are well worth visiting. Then, of course, all who go to the Mountains want to visit the Wonderland of New England, as the famous mountain pass, Crawford's Notch is termed. Everything there is in its primeval state, and charming cascades, rushing forest stream and gigantic mountains make it the ideal place for the tourist, as well as the one seeking rest.

Fabyans, in the very heart of the mountains, with Mt. Pleasant and Twin hard by, is in a region replete in alluring features, and one needs but a visit there to make him a mountain enthusiast. Mount Washington is the highest of any of the White Mountains and its summit is reached by a railroad. The journey occupies nearly two hours, and there is not a moment but what is interesting and the outlook is something grand. Jefferson is a pretty place, and the same can also be said of Whitefield and Lancaster. Bethlehem and Maplewood have many leading characteristics, but perhaps the most famous of them all is its renowned atmosphere, which is particularly helpful to hay fever sufferers. Besides its glorious sunsets, Sugar Hill has from its location an unobstructed view extending from Mount Washington on one side to Camel's Hump on Lake Champlain, and the mountains that border the Canadian shore of Memphremagog. North Conway and Intervale and Bartlett and Glen and North Woodstock are equally attractive as pleasure resorts, and at any of them you will find excellent accommodations, for the mountain hotels are every one of them models.

Beginning September 10 and continuing until about the eighth of October, the Boston & Maine Railroad will place on sale at many of its leading stations reduced rate tickets to all points in the Mountains. The choice of several routes will be allowed, and for information apply to any station ticket office. Send to the General Passenger Department Boston & Maine Railroad, Boston, for the book "What to See in the White Mountains."

Little Things In Managing Incubators.

If a man is about to start using an incubator for the first time it will be well for him to look after some of the little things that have so much to do with the success or failure in handling these adjuncts to poultry raising.

One of the things that should be looked after carefully is the regulation of the heating apparatus and the record of the same by the thermometers. It is best for a man to practice with the incubator without eggs in it till he is sure that he can control the heat. We believe it is a mistake for any amateur to go ahead at once with eggs in the drawer without knowing whether he can keep the temperature uniform.

In looking at the thermometer each time, do so quickly, as a dart of cold air will quickly cool off the air inside of the incubator.

Another thing that will be of interest to note will be the relative heat compared with the outside temperature. Some incubators are so carefully and thoroughly built that the outside temperature has little effect on them. There are others, however, that seem to be greatly affected by the general state of the weather. This is of great moment, as, if found that an incubator responds too quickly to outside influences it will be necessary to place it in the cellar or some other place where the temperature is uniform, or at least changes but slowly.

We believe there is less danger of the eggs being injured by too little heat than by too much. We have seen hens leave their nests in the early spring and stay away till it seemed that the eggs must all be chilled, and yet the same biddies would bring out a full brood of chicks from the eggs so treated.

As to the thermometer, be sure that it is correct. There will be no gain in saving money on a cheap thermometer and losing it in a whole drawer of eggs. If a cheap thermometer can be obtained that is reliable it will be as good as one that is expensive, but see to it that it is in every way reliable no matter what it costs.—Farmers' Review.

Do Not Do It.

That is, do not purchase prize animals at the autumn fairs or anywhere else for breeding stock. Any animals, with the possible exception of horses, which have been kept in a high condition, and petted and pampered, as is done with prize stock generally exhibited at fairs and exhibitions, are not thereafter as good for breeding purposes as those which have been kept in proper breeding condition. Many cattle have been ruined as breeders by being kept too close and fat during a long fair season, and pampered, perhaps, during a year or more previously, to fit them for show animals. The high priced rams and boars are usually those that have been winners of many prizes. Such almost invariably prove to be getters of inferior stock, and some of them prove impotent, or incapable of service. Of two animals in the show ring, with the exception of dairy cows, the one that is fattest will stand the best chance of winning in any class. The previous treatment which causes the animal to take the prize, is the very treatment that tends to ruin him or her as a breeder. The boast of the owner of a service ram or boar that he is a great prize winner, is the worst recommendation that could be bestowed upon him.—Galen Wilson in the Practical Farmer.

A New Tool.

One would naturally suppose that in the four or five thousand years that man has been cultivating the soil he would have about exhausted the needed tools, and that he would have all necessary utensils. But this is not the case, and in the struggle to get on as easily as possible the writer has conjured up an additional help that is simply wonderful as a back-saving invention.

Here is how you get it, and how you use it.

Go to the hardware store, if necessary, and get a two-inch carpenter's chisel, and a pitchfork handle. Now set the chisel securely in the handle in such a way that there is no wabble to it, and you have an instrument of offense and defense that has no superior in the whole list of "farming utensils." Its uses are manifold. When you walk around the place to see how things are coming on just take this thing with you, and what was work in your previous benighted condition becomes play. There is a plantain. Simply insert your chisel under the crown, a thrust, a slight twist, and there the pest lies, settled for good. There is no need of getting down and pulling the top off with your fingers, feeling for your knife, sawing the plant off under ground, and getting up to use bad language as you wipe off the blade of the knife on the most convenient part of your anatomy, while you see another seeding weed a few feet away. A little skill will enable a smart boy to uproot more weeds with this tool than three men can manage with the hunker-down process. Then in the case of the bedding plants one can reach almost any needed distance and clean out the weeds in the position of the upright man. In a little while it will become apparent that to insert the chisel in the ground nearest to you by a forward thrusting, with a wiggle-waggle motion you will be enabled to thoroughly well cultivate a closely set bed of plants where a hoe would be a nuisance. As a knocker-out of weeds it has no equal.—American Gardening.

THE HOUSEHOLD.

DAME DAISY'S "AT HOME."

Little Dame Daisy stood up in the window,
All dressed for her party at three;
Her gown was plain green, and looked dark in the shadow,
But her cap was a wonder to see.

Sir Buttercup stood at her side, the first comer,
As always devoted and bold;
And all the good cheer and good will of the summer
Shone up through his helmet of gold,

The clovers came next in their red, shining masses,
Where honey-bees revelled at will;
And butterflies swung in the frail grasses
That never a moment were still.

A bevy of sunbeams attended upon her,
Bewitchingly clad in their best;
And a chorus of birds warbled glees in her honor,
Till the afterglow paled in the west.

Then all said "Good night" to the bright little lady;
And straightway, all fluted and curled,
Her cap-borders closed round her face, warm and shady—
The coziest hood in the world!

—St. Nicholas.

THE DREADFUL THING---WHAT WAS IT?

[ANNIE HAMILTON DONNELL.]

Something dreadful was going to happen. It was going to happen *soon*. Meg and Cornwallis and the Inseparables (those were the twins) sat in a solemn row on Grandma's top door-step.

"O, my mercy, seems as if I should have to cry in a minute!" droned Meg brokenly. Her little round face was twisted into queer, creasy shape and her eyes blinked threateningly. The shower was right overhead.

"Poh, girls cry—boys don't," Cornwallis jeered, but there were quiver-quavers in his voice, too, in spite of himself.

"We've been a-cryin' like everything," the Blonde Twin murmured, not at all ashamed.

"An' got all cried out," the little Brown Twin said.

Yes, certainly, it must be something very dreadful indeed—so many sober faces in a row. And Grandmother's sweet old face in the window looked sober, so that was five.

"I've counted—there's just two days an' 'bout a quarter left," Cornwallis said, holding up two soiled brown fingers, and doubling down a third one for the fraction.

"There's just fifty-three hours left, that's what there is," said Meg. "An' we won't be awake anywhere near all of 'em, either—O dear!"

"O de-ar!"

All the others said that in chorus.

"O, dear," echoed dear old Grandma's heart. She was beginning already to be homesick. The big, empty house without any children in it—bless us! Not any tramp—tramp of little feet upstairs and downstairs—and nobody to slam the doors! To be sure, Grandpa had promised to slam the doors whenever he remembered it, but that wouldn't be Cornwally's sharp, crisp bang that made you shiver and say, "Bless the dear boy!" under your breath. And there wouldn't be any little coaxy twins coming in, to say, "O Gran'ma, you do make the best 'lasses cookies!"

"Two days more," murmured Grandma over her knitting-work.

The two days slid past very quickly. Meg said they went on express trains an' wouldn't stop at a single way station.

Then it was time—very, ve-ry nearly time, to kiss Grandma and Grandpa good-bye. For that was the forerunner of the Dreadful Thing that was to happen.

"There's just time to bid the sweet-peas good-bye—come on!" cried Meg.

"An' the Arbor an' the Apple-tree seat—"

"An' the Hay-mow House—hurry, le's run!"

They all scampered away in a line. The twins brought up the rear, because they always ran with their arms round each other and that isn't the quickest way in the world. Cornwallis was whistling bravely.

At the snug little seat in the low limbs of the northern spy tree they stopped.

"We'll all take turns a-sitting in it once more," whispered Meg solemnly.

It was quite an impressive little ceremony and all their sorry little faces were intently serious.

There was another ceremony of farewell at the sweet-pea trellis and up in the great sweet-smelling Hay-mow House among the crisp, dry clover blossoms.

After awhile that part of the Dreadful Thing was over, and Grandpa and Grandma, with four moist, loving kisses clinging to their lips still, stood watching the white puff of smoke sail back to them, fainter and fainter, in the wake of the train that was carrying the children off.

"Bless them!" said Grandmother softly.

"The dear little scamps!" said Grandfather's voice, huskily.

In the car four faces gazed solemnly at each other. All the tears had been cried—that was all there was left to do. The Dreadful Thing loomed nearer and nearer every telegraph pole they hurried past.

"It begins so soon, you know," Meg groaned.

"Day after to-mornin'," added Cornwallis.

"And it's so awful!"

"Right straight after all the fun an' the good times, too!"

The little Brown Twin unnestled her head from the little Blonde Twin's shoulder, and sat up straight and tragic.

"I most expect it'll kill us, don't you?" she said.

"Well, then, le's die game!" cried Cornwallis with a fine attempt at cheeriness. They all laughed a little—slowly, as if it were rather hard work.

On the day after the to-morrow the Dreadful thing itself came—or rather the children went to it. A great many other children went, too, and all the feet lagged a good deal at first. Round corners and up streets and down avenues they came on—the slow tramp, tramp of a little army. But it was noticeable, how much faster the feet moved when they joined at street corners and went on together. The more feet, the faster they went. At last they skipped a little. Then they ran! Under the very eaves of the Dreadful Thing they skipped and danced! And above them rose a shrill, sweet chorus of children's voices that sounded happy—happy. The Dreadful Thing was right there but—it was't a dreadful thing at all!

"I can't help it, but I feel real happy—this minute," confessed the little Brown Twin.

"Me, too," confessed the Blonde Twin.

"It isn't very bad—why, no!" Meg cried in surprise, "I—guess—I—like—it!"

Then a bell called to them in clear, kind tones. That afternoon when all the little feet tramped home again (and they moved gaily enough), all the owners of the little feet agreed together heartily that it had been such a pleasant day. They had such a good time!

"I'm so glad it's begun!" Meg and Cornwallis and the Twins chorused—and if you'll believe it, they were talking about the Dreadful Thing!

Can't somebody guess what the Dreadful Thing was?—Primary Education.

THE HOME CORNER.

FREE PATTERN.

By special arrangements with the BAZAR GLOVE-FITTING PATTERN CO., we are able to supply our readers with the *Bazar Glove Fitting Patterns* at very low cost. It is acknowledged by every one that these patterns are the simplest, most economical and most reliable patterns published. Full directions accompany each pattern, and our lady readers have been invariably pleased with them in the past. The coupon below must accompany each order, otherwise the pattern will cost the full price.

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Enclose ten cents to pay expenses.

No. 7450.—Ladies'Out Door Toilette Consisting of Ladies' Belted Jacket with Blouse Front.
No. 7453.—Three Piece Skirt.

Many new modes show the military style of braiding and the smart belted jacket with modified pouch front is still a favorite with smart women. Cadet blue broadcloth is here illustrated, the black velvet collar facing, belt and braid decoration showing to advantage against this becoming shade. The fronts are gathered at the lower edge and pouch slightly over the belt, pointed lapels being rolled back from the upper edges that meet the rolling collar in notched ends. The smooth back may be made with or without a centre seam, wide under-arm gores joining front and back gracefully, rounded side seams. The fronts close with a fly placed below the lapels to waist and a short peplum with underlying box plait in back is joined on under the belt. The two seamed sleeves are up-to-date in shape and effect, the slight fulness being adjusted by gathers at the top. The three piece skirt is one of the newest varieties and aptly illustrates the sheath fitting top with the fashionable flare below the knee which is the result of correct shaping. The foot is plainly finished while the narrow front gore is outlined with braid applied in design to match the jacket. Broadcloth in all shades will be much worn this autumn but serge, cheviot, camels hair and tweed, in plain and mixed varieties, are yet stylish fabrics for suits by the mode. A plain tailor finish may be given, or strapped seams can be added with smart effect, buttons with buttonholes taking the place of invisible fly closing. To make this jacket for a lady of medium size will require 2 yards of material 44 inches wide. The pattern, 7453, is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure. To make the skirt will require 3 1-2 yards of same width material. The pattern, 7454, is cut in sizes for a 22, 24, 26, 28 and 30 inch waist measure. With coupon, 10 cents.

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The identity of baby boys is hardly recognizable, owing to the custom of wearing caps just like a girl. Mothers generally feel hurt when the little man is addressed as "she" or some chance acquaintance exclaims "what a sweet little girl." To remedy this a boy's cap is introduced that looks masculine to a degree and at the same time is dainty, becoming and protective. Bedford cord is chosen for the long coat, the short prettily pointed cape having a deep frill of Irish point lace put on over one of white taffeta which is also used for lining. Insertion of Irish point is used as a heading for the lace, the neat turn over collar and wrists of sleeves being decorated with insertion and narrow edging. The long full skirt of coat is gathered at the top and joined to the lower edge of a short body that is fitted with shoulder and underarm seams. The two seamed sleeves are fashionably full at the top.

No. 7439.—Boy Baby's Hat and Long Coat.

The hat has a full crown portion that is gathered close in centre, the outer edge having slight fulness that is arranged on a band that fits the head comfortably. Over the band is placed a full ruching of lace edged net prettily interspersed with loops of baby ribbon, a large rosette of the same being placed in left of front. The hat in Tam shape, is made to come low over the back of head and the broad soft ties of mull form soft covering for the ears. To make this coat will require two and one-half yards of material thirty-six inches wide. To make the hat will require five-eighths of a yard of same width material. With coupon, 10 cents.

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The length of the smartest jackets will be twenty-two and twenty-four inches. That of the most desirable capes from thirty to thirty-six inches says the Philadelphia Record.

The new fichu or sloping shoulder effect of anti-bellum days seen on the latest fall cape models is very novel. They are finished almost invariably with a half-circular ruffle that narrows off into almost nothing in front as it slopes up to meet the flaring collar.

Many of the newest collars on both jackets and capes are cut in four pieces, suggesting an hour-glass.

The military cape will be an important part of every young woman's wardrobe this fall. These are made of army blue or gray military cloth, lined with scarlet and trimmed with gold cord and brass buttons. Hoods lined to match are a piquant addition to them, and can be added or not, as preferred.

A new model of a jacket that is making a bid for popular favor this fall has a box front and tight-fitting back with pleated extensions below the waist line. Hoods appear on a few of these jackets, also.

For elderly ladies jackets and coats of silk to be worn with woolen skirts are the mode. Moire antique, peau de soie and faille Francaise are the leading stuffs, invariably in black.

Passementerie decoration will be very noticeable upon stylish capes this winter. Cloth ones will have silk passementerie, while velvet capes will be embroidered in jet and spangles over half their surface.

The plainer tailor-made capes for utility wear will be trimmed with raw-edged strips of cloth about one-fifth of an inch wide and stitched once in the centre.

Coats and jackets of Scotch plaids and of bright artillery red broadcloth are favorites with our sisters in Paris. Undoubtedly they will reach us before the season is over.

Outer garments, combining fur and velvet will be exceedingly fashionable as the season advances. Even the fur shoulder capes are rendered longer and more voluminous by deep frilling of velvet, while pretty new fur tippets open over a velvet front.

Between late autumn and early winter white cloth jackets of the toadstool tint will be in wide vogue among the ultra-fashionable.

A wide serpentine flounce, giving the effect of a lone upper shoulder cape, is a feature of many of the new cape designs.

The wide-waled diagonal cloths will probably have a place this season for jackets, but they will not be as popular or as chic as the more refined-looking, smooth-faced meltons, kerseys and broad-cloths.

Fashion's autocrats assert positively that very short jackets will be in high favor.

Fancy feathers will be a leading feature of fall hats and the Alpine shape much in vogue.

Black cravats seem to be all the rage for fall; white ones have been worn so long as to be tiresome.

Unequal ribbed poplins bid fair to be one of the foremost weaves in dress goods the coming season.

Cherry velvet for stock and girdle makes a charming accessory for a black gown and gives the desired fall touch.

In choosing tints for autumn wear, a good plan is to follow Nature's teachings. Reds and browns are always proper for this season.

For lining gowns, for petticoats or shirtwaists, the latest prettiest and most seasonable is a cherry or currant red taffeta with black hair line stripe.

Richly embroidered liberty bands in an infinite variety of designs and coloring are a trimming that will be a pronounced success for fall.

Lace insertings, when used for garniture, will be confined entirely to the narrow and medium widths.

Chenille will be the craze of the millinery world. It is seen on felts, in soft effects on crowns, toques and rondeaux and appears in dots on ostrich tips and quills.

Fur will be a salient feature of woman's wear when the cooler days arrive. Not only in garments but in folds and edgings on gowns. Revers, yokes and collars will be piped with it and even flounces and ruffles headed with it.

The blouse effect is still in evidence on the newest separate waists, especially on those made of velvet.

One cannot make a mistake in having the fall costume trimmed with braid. Flat silk and mohair, satin soutache, Hercules and passementerie patterns, are all fashionable for fall.

Shirtwaists will be worn unusually late this year with either a bright string tie or a pique stock and Ascot. Shirtwaists of pique, so much worn this summer, lend themselves nicely to cool weather wear on account of their unusual weight.

Sand tint is a new shade that is uncommonly chic. Lavender blues, gray-red and brown are the shades for between-season gowns.

Rosettes made of plain ribbon of a medium width trim many smart gowns.

Waist bands for bodices cut off at the waist are universal. Even some of the jackets are belted around the waist or across the back. These bands are made of broad ribbon or piece material—velor soft satin—and for elaborate dresses arranged in folds.

Madame la Mode says the days of the top puff on the sleeves are numbered. That while it dies hard yet the plain coat sleeve is only a question of a very short time.

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I have been giving away big bunches of sweet peas, and bragging. How could I helping bragging when for two seasons I have had sweet peas in bloom before any one else in town, says a correspondent of the New York Observer.

I have a tiny garden, and after it is prepared in the spring, I do all the work in it myself, while all the other places about here have regular gardeners, and many of them have one or two men working under them besides, and yet I had bunches of sweet peas to give away before any of their's had begun to bloom. I was even ahead of the professional florist. No wander I bragged.

The way I accomplish it is to prepare the trenches in the autumn. I have unusually deep trenches dug, eight inches. In the bottom, I put about three inches of fine stable manure, and on that fill up with wood ashes and leaf mould, covering all with earth. You can scarcely give sweet peas too much wood ashes and leaf mould. Then in the spring, having my trenches already prepared, the sweet peas can be sowed before the ground could otherwise be worked and being sown early naturally they bloom early. I draw out three or four inches of earth from the trenches and sow the peas, covering them with about an inch of earth, and as they grow, I draw more earth about them, but not covering the tips, until they are about six inches deep.

The regular gardeners about here watch and want to know how I do it, but they call this a "new fangled way," and adhere to their old methods, and then when my sweet peas bloom first they don't like it. To be beaten by an amateur is quite too much for their feelings.

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Preserved Watermelon Rind.—Remove the inner pulp and the outer dark green rind, and cut the remaining portion into small pieces, i. e., about an inch square. Cover with cold water, adding one tablespoonful of salt to each quart of water. After standing in the salted water twenty-four hours, drain and rinse thoroughly. Then cook in boiling water until tender and transparent. Drain and dry on a platter. For each pound of rind make a syrup of three-fourths a pound of sugar and half a cup of boiling water. Add also half an ounce of ginger root. Bring the syrup to the boiling-point and skim thoroughly. Add the cooked melon and a lemon cut in thin slices, and boil twenty minutes, or until the pieces of melon look rich and full.—Mrs. Janet M. Hill in Boston Cooking School Magazine.

Corn Oysters.—Score the raw corn and press out the pulp, scraping the cobs closely. For each cupful of the pulp allow one-quarter of a cupful of flour, one well-beaten egg, one-half of a tea-spoonful of salt and one-quarter of a teaspoonful of white pepper. Drop by small spoonfuls into deep fat or fry on a hot greased griddle.

Eggs Baked with Cheese.—Let six eggs stand in water, "just off the boil," half an hour. Remove the shells and cut in thick slices. Butter a baking-dish; put in a layer of sliced egg, then one or two tablespoonfuls of grated cheese, until all the egg and a tablespoonful of cheese for each egg are used. Pour over the top a cup of cream sauce (two tablespoonfuls, each, of butter and flour, one-fourth a teaspoonful of salt, and one cup of milk), and sprinkle with half a cup of cracker crumbs, stirred into two tablespoonfuls of melted butter. Set in the oven until the crumbs are browned.—Mrs. Janet M. Hill in Boston Cooking School.

Corn Omelet.—Either uncooked corn or corn cut from ears that have been steamed will serve. In cutting corn from the cob, the grains should be cut through the middle and the remainder scraped. Have in readiness a sufficient quantity of corn—about a half cupful to four eggs—before preparing the eggs. Break eggs, white and yolks together, beat until they begin to foam, but not until they are as light as it is possible to make them, add the corn and four tea-spoons milk or cream, season, pour into a hot frying-pan in which there is sizzling a piece of butter. Stir very lightly the center, shake the pan about two or three times, loosen the edges of omelet, and when evenly cooked and of sufficient consistency for manipulation, fold and turn on to a hot platter.

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Corning Beef, Mutton and Chicken.—Cut a round of beef into four pieces, rub each piece lightly with salt, and put it on a board for twenty-four hours. Make a brine from one tub of water, half a pound of sugar, a teaspoonful of powdered saltpetre and sufficient salt to make a brine that will float an egg. Put the meat into this brine, cover and stand in a cool place for two weeks. Watch carefully to see that there is sufficient brine to cover the meat. If the meat becomes exposed add a little more brine made from salt and water. At the end of two weeks take out the meat and hang it in a cool place to dry. When thoroughly dry examine carefully, dust with red pepper, wrap in manilla or white paper, slip each piece in a bag and stitch to fit the meat. Give a coat of whitewash, and hang away to keep. Beef that is smoked is called beef. Smoking helps to preserve beef, but impairs the flavor. If the weather is too warm the meat will spoil before it dries. If too cold it will not take the salt. The latter part of September or the first of October is the best time for salting large quantities. The receipt given above may be used for mutton or chicken hams.—Mrs. Rorer in Ladies' Home Journal.

OUR HOMES.

SOLACE.

How shall we span with comfortable thought
The worlds of life and death, and make them one?
By calling both one household, large and fond,
Just as it is when comes the evening hour.
The most are weary; some have gone to rest—
The babes, the aged and the feeble ones;
The strong and active sit awhile and talk
Of all that has been done and is to do;
Of the day's happenings to the ones asleep;
Of what will make them glad when morning comes.
And in the intervals of play or work
The eye of each is lifted now and then
To note the hour upon the old clock's face,
Whose heart outbeats so long the human one.
Then comes the thought that it is growing late,
That very soon we too must go to sleep.
Oh! what sweet comfort, that from first to last,
Sleeping or waking, all are in God's home,
And one paternal roof doth cover all!

—Charlotte Fiske Bates.

THE PASSING OF AUNT NANCY.

Uncle Nathan has made us another visit and told us another story, and, at the risk of again braving the displeasure of the Arcadians, I will again betray his confidence:

You are waitin' to hear about the Nelligan young-one and Uncle Si, 'n' I promised to tell you about 'em? Well, so I did, but I guess they will wait a while. Them things only just happened 'n' I guess it won't do any harm to let 'em sizzle, but it's different 'bout Aunt Nancy's goin'—different and sadder. 'N' then 'bout Seth Waters, too, 'n' the part he played in the story. That has riled us all up. It was worse than the war a long sight, 'n' worse than it was when the news came that the bank had gone down. We'd got used to that part of it.

Come to think they was both worse than the war, because they concerned us 'n' our folks, 'n' we didn't have a single soldier in the war. I'm sorry that it's so. I would have liked to have the old town represented down in Cuba with the rest of the brave boys that's a fightin' for the freedom of them poor Cubans, but there didn't none enlist, 'n' so the war was interestin' only as an outside question is interestin' It gave us lots ot excitement, a-jawin' one another about it 'n' sassin' those that didn't agree. Some said that the Cubans were a passel of niggers that want worth fightin' about, but I rather think if them same folks saw a poor starved rag of a cat with a lot of dogs a bitin' at it—I rather think they'd drive off the dogs if they could 'n' give the cat some milk.

But about Seth's bein' found—we even went out in the church sheds on Sunday 'n' talked 'bout it, 'n' that was something that we never did (only now 'n' then) for it ain't proper on Sunday. 'N' what indignation meetin's we did have, to be sure—but then you couldn't blame us when you think what it was all about. As I said, we'd got kinder used to the bank's failin', 'n' was tryin' to get ahead in the world a little again (those of us who could), when all of a sudden word came that Seth Waters had been found. There hadn't been nothin' heard from him for a long time, 'n' some thought he was dead, 'n' some said he was in Mexico, 'n' some that he was in Jim Blake's cellar, 'n' some was sassin' the sheriff, 'n' some hoped he wouldn't never be found.

But all of a sudden Calvin Pettis saw him a struttin' round in a little town out West (Calvin had land out there 'n' had gone out to tend to it), 'n' Calvin went 'n' told where he was 'n' the officers went for him, 'n' then if there wa'n't a hullabaloo! Some said he was a fool for being found, 'n' some was sorry, 'n' some was glad, 'n' some set to 'n' scolded Calvin, 'n' said he was a mean sneak 'n' wasn't fit to 'sociate with anybody. But Deacon Wendell said—'n' I always set a good deal of store by what he says—Deacon Wendell said that Calvin did right. He said that the folks that blamed Calvin had been Waterized, 'n' their ideas of what was right 'n' wrong were flabby, 'n' partook of the same ideas, the same morals, as led him to steal from those who trusted him. He said if Calvin had said nothin' he'd been a-sharin' in what Seth had done, 'n' sharin' or his guilt. That was what the deacon said, 'n' I think the deacon was right.

'N' then the papers was full of the way Seth acted 'n' the way he was treated out West. They told how he said he was one of the biggest men in the state 'n' had more spunk 'n' nerve than the fellers that was a shootin' Spanish Dons down in Cuba had, 'n' how popular he'd been 'n' how many offices he'd had, 'n' how smart he was. Why, he seemed to think he was one of the greatest criminals on the face of the earth, 'n' kinder gloried in it. Why, he was so interestin' that all the folks out there got round 'n' looked at him 'n examined his bumps 'n' flattered him 'n' told him what a fine feller he was, 'n' the greatest sinner of his age. 'N' then he swelled right up, just like a horse that's got the colic, 'n' just gloried in his smartness 'n' his shame. 'N' the officers took him to high-toned restaurants 'n' gave him cigars 'n' papers 'n' let him read about himself, 'n' it was all nuts to him—just nuts.

But all the time the country was admirin' him 'n' he was admirin' himself, there were folks that wa'n't goin' to restaurants 'n' ball games 'n' hadn't nothin' left to buy cigars with, let alone papers. They was those whose money he'd spent for buyin' votes 'n' champagne, coon suppers 'n' the like. The old 'n' the crippled 'n' the orphans 'n' the well-to-do that had lost their all, 'n' all those were very far from bein' in luxury in those days that Seth Waters was spreading himself down South.

That was what riled us so, 'n' then Aunt Nancy's case was what came home to us 'n' made us sense it all the more. But I will tell you about Aunt Nancy. She 'n' her husband, Jason Gray, lived on one of the best farms on the West Hill, on the southeastern side with some fine medder land, good land, 'n' they were well off 'n' thrifty. They never had no children, but that didn't close their hearts, for though they laid up money, they gave much away. 'N' when Seth Waters was a poor little orphan boy he used to come up 'n' stay with 'em 'n' play with little Tommy, Jason's sister's boy. They thought sights of Tommy, but he died. Well, a few years ago Jason died 'n' left Nancy all alone, but she had money 'n' knew how to farm 'n' could pay for havin' her work done, 'n' so got along for a while. But all her money was in Seth Waters' bank, of course, 'n' when that broke she couldn't touch a cent, 'n' hadn't hardly a cent to get along with, 'n' when the people that used to work for her when she had money found out she hadn't any, of course they found work for others 'n' wouldn't work for Aunt Nancy for nothin',—'n' poor Aunt Nancy had a hard time, but she managed for a while, for there was stock on the farm 'n' hay 'n' a few other things 'n' some provision. Aunt Nancy was so proud that those who were willin' couldn't help her much, for she wouldn't take the things they gave her unless there was a pretty good excuse. As I said, she sold off the things by degrees 'n' got along for a while.

We were busy 'n' hadn't seen much of her, till all of a sudden word came that Aunt Nancy was nigh on to death. 'Twas right in the middle of hayin' 'n' awful hot, fine weather for dryin' the grass, but I just left everythin' to the boys 'n' hitched up Nelly, 'n' me 'n' your Aunt Lucindy drove right over. We got there about five o'clock 'n' found one of the neighbors there, she that was Ann Payson Ann said that Aunt Nancy had seemed dreadful spindlin' for some time, but had kept round and was bright before the neighbors, but one day they went in 'n' found her fainted dead away on the floor, 'n' the doctor said as how her heart was a-givin' out, 'n' in such hot weather there wa'n't much hope for her. 'N' then Ann said how she hadn't been able to find anything in the house to eat except a little cornmeal 'n' some jelly put away in the butt'ry. It seemed that poor Aunt Nancy had got to the end of her money, 'ceptin' that that was in Seth Waters' bank, 'n' she was so proud she wouldn't beg 'n' had pretended to the neighbors that she was all right. She'd sold all the stock 'n' hay by degrees 'n' nothin' was left, 'cepting a few thousand dollars buried so deep it'll take years to dig it out, in Seth Waters' bank.

"Well, Ann was puttin' up her hair when we got there. She said she didn't know as anybody was comin' to help her 'n' she might be alone through the night, 'n' as Aunt Nancy seemed so nigh on to death she thought she'd put up her hair, but when we came she said she must go, so your Aunt Lucindy went right in to Aunt Nancy 'n' I turned Nelly into the pasture for the night.

And then after we went in 'n' had had eaten some johnnycake, we sat down, me 'n' Lucindy, in the west bedroom, to watch and take care of poor Aunt Nancy, but there was nothin' we could do, 'cept to fan her now 'n' then, for she was most gone.

The window looked out to the west 'n' the sun was a settin', 'n' she seemed to be watchin' it as she lay there murmurin' things that we couldn't understand. The sun flickered through the lilac bushes 'n' the syringas in flashin' blobs of light, dazzlin' to our eyes, 'n' as it went down behind the hills it grew orange 'n' flamy, 'n' seemed like a great ball of fire. There wa'n't a cloud in sight, 'n' it seemed as if to-morrer would be another sweatin', bakin' day. But bimeby, when it begun to grow dark a little, a faint breath of wind came up, 'n' the dew began to fall 'n' the fireflies to light up 'n' all the insects came out, 'n' a little frog in the pond went boom, boom, boom, 'n' a little bird twittered softly, 'n' we sat there in the dark 'n' listened to Aunt Nancy, who seemed to be passin' fast to the other shore.

"Hush!" says she, "Jason's callin' the cows, co-boss! co-boss! they're way down beyond the woods. Hush! Tommy, listen to him a-callin'—callin' sometime, Tommy, you'll call the cows for Jason 'n' me. Co-boss! co-boss! he's going further down the hill. Tommy, I've baked some little turnovers for you an' Seth to take a-fishin.' Take good care of Seth 'n' come home early from the fishin'. Jason is a-callin' yet, 'n' the tinkle of the cow-bell sounds further 'n' further down the hill. Co-boss! co-boss! down where the willow bushes are. Come home, Jason, for Tommy's moanin' 'n' moanin', 'n' I'm afraid he's goin' to die 'n' leave us. Come back, Jason!—will the cows never come?"

'N' after this she lay quiet for a spell, only muttered 'n' peered through the lilacs to the fadin' red, till all of a sudden she raised up, 'n' cried out that Seth was in danger 'n' the officers were after him, 'n' there was nobody that loved him but her,—poor Seth, how could he have been so wicked? 'N' then she seemed to be a-thinkin' about the time that Mary put him in her arms, a fatherless boy, 'n' asked her to love him, for they had been girls together, 'n' she was all the friend of hers that was left. 'N' now she seemed to think that it had been her fault that Seth had strayed away 'n' blamed herself 'n' wanted to go to help 'n' comfort him. 'N' it all seemed so sad to Lucindy 'n' me that we was glad when she heard Jason a callin' the cows again, and cried that they was comin' up the lane to the barn-yard gate 'n' she would carry the pail for Jason to milk the cows,—'n' then murmurin' of the sunset 'n' Jason, 'n' how they were together at last with Tommy 'n' Mary, she fell asleep 'n' never woke again.—Springfield Republican.

AS MOTHER USED TO DO.

He criticised her puddings and he found fault with her cake;
He wished she'd make such biscuit as his mother used to make;
She didn't wash the dishes and she didn't make a stew,
Nor even mend his stockings, as his mother used to do.

His mother had six children, but by night her work was done;
His wife seemed drudging always, yet she only had the one.
His mother always was well dressed, his wife would be so too.
If only she would manage as his mother used to do.

Ah, well! She was not perfect, though she tried to do her best,
Until at length she thought her time had come to have a rest;
So when one day he went the same old rigmarole all through,
She turned and boxed his ears just as his mother used to do.

—Ex.

FRIENDSHIP: A PARABLE.

BY BEATRICE HARRADEN.

There was once in the ages gone by, a gardener of rare patience and discernment. He would go out into wild places, and, stooping down, would detect some tiny plant of no moment to careless eyes and would bring it home to his garden and tend it with such loving care that it would gain strength and beauty, surprising him and gratifying him with its generous responses to his tender fostering.

People heard of his beautiful plants and came to his garden.

"Ah, you indeed have a rare plant here!" they would say, pointing to one of his treasures. "That must be priceless in its worth."

"No, indeed," he answered; "it is just a wild flower, nothing more. There are thousands like it."

"But if we bring wild flowers home they die," they answered. "How is that?"

"I cannot tell," he said, "unless it is that I care so much and that I have put my heart's desire into the tending which I give them day after day and week after week."

Now, one day the gardener was in trouble; great sorrows had encompassed him and the bright light had faded from his life.

It was nothing to him that his garden was beautiful and that the fame of it had travelled first to one land and then another, and that many strangers sought to learn the secret of his subtle skill.

All this was nothing to him. Heavy-hearted he went about his work, finding neither peace nor comfort until one early morning when he was wandering listlessly in the desert, weaving round his soul a network of sad thoughts, his eye chanced upon a tiny white flower.

There was something in the whiteness of it which held him for a moment spellbound—it was as white as the surf of the fairy Pacific; as white as an untouched field of Alpine snow; as white as one's ideal of a pure mind.

He stooped down and deftly raised its roots, and, forgetful of all his sorrows, hastened home with his fragile burden.

But, alas! it was so fragile that at first he did not dare to hope that it would live. It drooped and drooped and the gardener knew that he would lose his treasure.

"If I could only have saved it," he thought. "I never cared for any flower so much as for this one."

Well, he saved it. And when at last it raised its head and smiled to his care he felt a gladness unspeakable.

"Little friend," he whispered, "I found thee in an hour of sadness, and together with thee I found courage and consolation, and therefore I name thee Friendship."

It grew up strong and beautiful, white as the surf of the fairy Pacific, white as an untouched field of Alpine snow, white as one's ideal of a pure mind.

Of all the plants which the gardener cherished this one called Friendship far outshone them all. Strangers could never pass it without a tender word of praise and without asking the name of this plant, which looked so chaste and calmly beautiful, and when they had learned its name they all wanted it.

The rich were willing to pay any price for it, and those who had not money would fain have offered the best service of their minds, their brains, their hands.

But the gardener smiled always and shook his head.

"Nay," he said, "I cannot sell it, neither for money nor fame, nor anything which the world may hold. It is my very own—part of my own self. But go ye out into the wild places and you will see many such plants. There they are for everyone to take or leave. Only have a little care in lifting them and in nursing them. They are very frail. Still if you use every care you know your little white flower, Friendship, will grow up strong, revealing to you all the time new beauties and fresh delights. At least, thus it has been with me."

Then, so runs the legend of the gardener, those who were eager enough to take the trouble wandered into wild and lonely places and found the tiny white flower, as they thought.

But they often gathered the wrong plant and took it triumphantly to the gardener.

"See here," they said, "we have had no trouble with this flower. From the very first it nourished and grew space."

The gardener looked at it and smiled sadly.

"So many have made that mistake," he said. "This is not the plant Friendship, but merely its counterfeit, which after a time loses its whiteness, and then it could not deceive any one."

But others who came to the gardener had indeed found the real plant Friendship, only they could not rear it. They brought their faded plants to him and pointed to them sorrowfully.

"Mine did so well at first," said one of the strangers. "I felt so confident of success."

"Perhaps you were too confident, and so neglected it," said the gardener kindly. "If thou tryest once more remember that thou must never relax thy watchful care."

"Ah, how can I ever hope for success now?" said the stranger sadly. "My heart is sore with disappointment."

"One never knows," said the gardener, "and if thou shouldst ever tend another plant, hasten to tell me how it has fared with thee and it"

The gardener lived to know that many taught by him had learned to find the fragile flower Friendship and to rear it with success. Some had failed once and twice and three and then succeeded, and others had failed altogether.

But there were many who had divined his secret, and he was glad, for he knew how much the world would gain of whiteness.

Then he died, and it is not known to whom he bequeathed his beautiful plant.

Maybe you have it; perchance I have. It is surely among us somewhere.

There is no friend like the old friend who has shared our morning days,
No greeting like his welcome, no homage like his praise;
Fame is the scentless sunflower, with gaudy crown of gold,
But friendship is the breathing rose, with sweets in every fold.—O. W Holmes.

For the MASSACHUSETTS PLOUGHMAN

The Ox and His Yoke-Fellow.

Matthew Arnold, the English literary critic, says: "George Sand is one of the few French writers who keeps closely and truly intimate with rural nature." Let us follow her as she turns away from a mournful picture of Holbein, the artist, into the fields of France and drink in the beauties of her own pen picture, so faithfully translated from nature:

"My walk was by the border of a field which some peasants were getting ready for being sown presently. The space to be ploughed was wide, as in Holbein's picture. The landscape was vast also; the great lines of green which it contained were just touched with russet by the approach of autumn; on the rich brown soil recent rains had left, in a good many furrows, lines of water which shone in the sun like silver threads. The day was clear and soft and the earth gave out a light smoke where it had been freshly laid open by the plough share. At the top of the field an old man whose broad back and severe face were like those of the old peasant of Holbein (in the picture), but whose clothes told no tale of poverty, was gravely driving his plough of an antique shape, drawn by two tranquil oxen, with coats of a pale buff, real patriarchs of fallow, tall of make, somewhat thin, with long and backward-sloping horns, the kind of old workmen who by habit have got to be brothers to one another, as throughout our country side they are called, and who if one loses the other refuse to work with a new comrade, and fret themselves to death. People unacquainted with the country will not believe in this affection of the ox for his yoke-fellow. They should come and see one of the poor beasts in a corner of his stable, thin, wasted, lashing with his restless tail his lean flanks, blowing uneasily and fastidiously on the provender offered to him, his eyes for ever turned towards the stable door, scratching with his foot the empty place left at his side, sniffing the yokes and bands which his companion has worn, and incessantly calling for him with piteous lowings. The ox-herd will tell you: 'There is a pair of oxen done for! his brother is dead, and this one will work no more. He ought to be fattened for killing; but we cannot get him to eat, and in a short time he will have starved himself to death.'"

Open Toward the Sky.

One sorrow which comes to men as they grow old is a sense of the tedium and weariness of life. They are weighed down by a feeling of sameness. They walk the same streets and enter the same office; they go through the same routine and retire, to go back through the same streets, to spend the evening in the same way; they go to bed, to wake up on the morrow with the same duties awaiting them. What are we to do? I say, Let us reinforce ourselves for the duties of the present world by the power of the world to come. Countries which have no seaboard endeavor to push their way gradually to the sea; and then at last, when they have gained but a single harbor, they will send out ships manned by brave men. These ships will go anywhere, anywhere—that's the point—and carry out what poor things they have to sell, and bring in return the greatest treasures. So it is with those who do not rest content with the things of the present life alone, but entrust themselves to the power of the world to come; all things acquire a new meaning, there is nothing common, no, not even the cleaning of a kitchen or the making up of a bookkeeper's account.

You enter a young man's room. You look around and see Shakespeare, Milton, Dante, Carlyle. It is a small room. Small? The dimensions you see do not measure that room. The walls do not shut it in. The authors you have noticed are windows open toward the sky—windows which look out even unto the throne of God.—Ian Maclaren.

"Do you think," said the intellectual young woman, "that there is any truth in the theory that big creatures are better natured than small ones?"

"Yes," answered the young man, "I do. Look at the difference between the Jersey mosquito and the Jersey cow."

MRS. PINKHAM'S ADVICE.

What Mrs. Nell Hurst has to Say About It.

DEAR MRS. PINKHAM:—When I wrote to you I had not been well for five years; had doctored all the time but got no better. I had womb trouble very bad. My womb pressed backward, causing piles. I was in such misery I could scarcely walk across the floor. Menstruation was irregular and too profuse, was also troubled with leucorrhœa. I had given up all hopes of getting well; everybody thought I had consumption. After taking five bottles of Lydia E. Pinkham's Vegetable Compound,

I felt very much better and was able to do nearly all my own work. I continued the use of your medicine, and feel that I owe my recovery to you. I cannot thank you enough for your advice and your wonderful medicine. Any one doubting my statement may write to me and I will gladly answer all inquiries.—Mrs. NELL HURST, Deepwater, Mo.

Letters like the foregoing, constantly being received, contribute not a little to the satisfaction felt by Mrs. Pinkham that her medicine and counsel are assisting women to bear their heavy burdens.

Mrs. Pinkham's address is Lynn, Mass. All suffering women are invited to write to her for advice, which will be given without charge. It is an experienced woman's advice to women.

GEMS.

If you don't want dull thoughts to come, you must keep 'em away as I keep the weeds out o' my bit o' garden. I fill the beds so full o' flowers that there isn't any room for weeds.—Daniel Quorm.

I keep a little lamp alight
All day, all night.
The moon can quench it not nor sun,
It shines before the Holy One.
O my soul's light,
Burn bright!

—Hannah Parker Kimball,

Keep yourself quiet and in restraint; reserve your energies, doing those little things that lie in your way, each one as well as you can, saving your strength, so that when God does call you to do something good and great you will not have wasted your force and strength with useless strivings, but will be ready to do the work quickly and well.—Clara Barton.

What we are is much more to us than what we do.—Herbert.

Be a whole man at everything; whole man at study, in work, in play.—Joseph Gurney.

I have always been a quarter of an hour before my time and it has made a man of me.—Nelson.

It is as easy to call back a stone thrown from the hand as to call back the word that is spoken.—Anon.

What dost thou fear? His wisdom reigns
Supreme confessed;
His power is infinite; His love
Thy dearest, fondest dreams above—
So trust and rest.

—A. A. Proctor.

Economy is half the battle of life; it is not so hard to earn money as to spend it well.—Spurgeon.

It is the vain endeavor to make ourselves what we are not, that has strewn history with so many broken purposes and lives left in the rough.—Lowell.

By ignorance thy choice where knowledge leads to woe.—Beattie.

Nothing more detestable does the earth produce than an ungrateful man.—Ansonius.

If honesty does not exist, we ought to invent it as the best means of getting rich.—Maribeau.

Good manners are a part of good morals, and it is as much our duty as our interest to practice both.—Hunter.

No man ever did a designed injury to another but at the same time he did a greater to himself.—Home.

There are many ways of being frivolous, only one of being intellectually great; that is honest labor.—Sydney Smith.

What right have we to pry into the secrets of others? True or false the tale that is gabbled to us, what concern is it of ours?—Bulwer.

Nothing sharpens the arrow of sarcasm so keenly as the courtesy that polishes it. No reproach is like that we clothe with a smile and present with a bow.—Chesterfield.

He is the wisest and happiest man who, by constant attention of thought, discovers the greatest opportunity of doing good and breaks through every opposition that he may improve these opportunities.—Doddridge.

THE HORSE.

Size in the Horse.

John H. Wallace, who originated the American Trotting Register, and was for years editor of Wallace's Monthly, has for the past few years been devoting his time to hunting up the history of the earlier importations of horses into the United States, and the characteristics of those brought in from different countries. The results of his labors he has published in his new work, entitled "The Horse of America." Mr. Wallace states that at the time the first importations were made from Great Britain and European countries they were much smaller than at the present time. According to the evidence collected the colonial horses of Virginia about 1750 were nearly all between thirteen and fourteen hands, and that for one hundred years they had retained the peculiarities of their English ancestors of the reign of James I in color, size and gait. In the Dutch colony of New Netherlands, afterwards called New York, the early horses were brought from Utrecht and they were about a hand higher than the English importations. In 1756-59 the average horses of Massachusetts had attained the average height of fourteen hands and one inch, while in Connecticut they were thirteen hands and three inches. Pennsylvania then had the smallest horses of the colonies. In South Carolina they averaged thirteen hands one and a quarter inches. Since the time of the Revolution horses have been steadily increasing in size. Mr. Wallace believes this to be due to the importation of larger horses from abroad for breeding purposes, and selecting the largest of their progeny to breed from. Undoubtedly this has been the case to a large extent, but we believe that better care and feed while growing has also been a great factor. If not, where did the large horses come from which were imported from Europe? Undoubtedly the colonists brought over the ordinary horses of the countries from which they emigrated, and they are shown to have been very small. The increased size referred to must have come from those who were breeding horses doing their best to produce larger animals through better feeding during the growing period. This has been found a potent factor in increasing the size of other domestic animals without the use of outside blood. The beef breeds of cattle are a case in point. The Shorthorn and Hereford are much larger and more massive animals today than they were a hundred years ago, and yet no larger animals of outside blood were used to increase their size. We know this because there were no larger ones in existence. It was simply the result of better feeding and the selection of the largest to breed from. We suggest, as a corollary to this discussion, that farmers can increase the size of their horses by feeding their colts better, and protecting them from the inclemencies of the weather. Size in domestic animals is an artificial matter, and to sustain or increase it, artificial measures must be resorted to. The big draft horse will surely decrease in size from generation to generation if left to shift for himself during the period of growth. This is a very important factor in fixing values. Generous feeding of the growing colt will surely result in a larger and smoother animal than if it is allowed to grow up on the farm as best it can.—Michigan Farmer.

Horse Talk.

Those who read advertisements and articles in live stock journals should not fail to observe the true meaning of the terms used therein. One of the most commonly misused and misunderstood is the word colt. Most people call any foal a colt, but this is not technically correct. Only the male foal is called a colt; the female foal is known as a filly. These terms are much handier than the words "horse colt" or "mare colt," so often used to distinguish the sex of young horses.

Another term frequently misused is half-sister or half-brother. Strictly speaking a half-brother of a horse is a colt out of the same dam but by a different sire. Star Pointer 1:59 1-4, for instance, is a half-brother to Hal Pointer 2:04, because they are out of the same dam. If they had been sired by the same horse out of different mares they would not be half brothers according to the accepted meaning of the term.

And while we are about it we may add that the dam of a horse is known in ordinary parlance as his first dam; her dam as his second dam, and so on. The grandsire is the sire's sire, and the maternal grandsire is known as the sire of the dam, etc.—National Stockman.

The Weather Bureau's Weekly Crop Bulletin.

FOR WEEK ENDING MONDAY, SEPT. 5, 1898

OFFICE OF THE UNITED STATES WEATHER BUREAU, BOSTON, MASS., SEPT. 5, 1898.

The weather for the past week continued very warm and sultry. There was, however, more sunshine and less moisture than during the preceding week. The general conditions have favored agricultural pursuits, and farm industries have progressed accordingly. Advantage was taken of these conditions to finish the harvesting of overripe grain, securing the second crop of hay, cutting tobacco and to further general farm work, which has lagged during the protracted wet weather. Violent local storms occurred in many sections during the week, mostly on Wednesday and Thursday. In many instances considerable damage resulted to grain and fruit from high winds; in a few others from lightning. A barn was burned at Hinsdale, Mass., and a house set on fire at Springfield, Mass. At Brookline, N. H., large trees were uprooted by the wind, and the electrical fluid damaged wires and electrical instruments. Seasonal conditions obtain in the eastern and northern counties of Maine, where a drought, more or less severe, prevails

Temperature.—In this element the week exceeded the preceding one throughout the district. Several correspondents considered it the warmest period of the season. The high temperature has caused rapid growth of vegetation.

The average temperatures for the week at Weather Bureau Stations in the district are as follows: Eastport, 62; Portland, 70; Northfield, Vt., 72; Boston, 76; Nantucket, 74; Albany, 80; New York City, 80.

Rainfall.—The precipitation is by far the lightest for several weeks. Yet the only complaint of drought is from Maine, where wells and springs are failing, streams running low, and pastures and meadows drying for want of rain.

The totals at the Weather Bureau Stations for the week are as follows: Eastport, 0.50; Portland, 0.30; Northfield, Vt., 0.80; Boston, 0.30; Nantucket, 0.10; Albany, 0.20; New York City, 0.05.

CONDITION OF CROPS.

General Situation.—Vegetation, generally, continues in a most thrifty condition, except in parts of eastern Maine, where rain is needed. Light showers with warm, sunny weather have maintained mid-summer verdure. Harvesting of grain is now nearly completed, tobacco cutting well advanced, corn nearing maturity, potato digging is becoming general and fall plowing and planting have begun. At present everything points to a favorable termination of a good crop season. All products are fairly abundant and of good quality Fall feed is plentiful and stock in excellent condition.

Grain.—Good weather has favored the harvesting of grain, which has advanced rapidly, with the end in view. The securing of buckwheat is now at its height. The crop is reported good, in many sections large—heavily filled. Reports are unanimous in favor of a large corn crop. Sweet corn is being canned in large quantities, and the field variety is being picked and the stalks cut, especially in southern sections. Frost now would do much damage to the crop. Fall plowing and seeding are in progress. At Hawleyville, Conn., re-seeding will be required, due to dry weather in June. The present conditions presage successful operations in fall farming.

Grass.—Much grass, mostly second crop, has been secured during the week. Rowen is unusually large, in many sections almost equalling the first crop. Hungarian grass is also good and secured in good condition. With few exceptions pastures are in good condition.

Fruit.—Apples continue to improve in color and quantity. In scattered sections the yield will be large, though the crop will average very light. Pears, plums, peaches and grapes are uneven in quality and quantity. The weather has improved cranberries, though less than an average crop is still indicated. Dr. J. Fisher, Fitchburg, Mass., reports fruit ripening seven days later than the average for 42 years, and two days later than in '97.

Vegetables.—While there is more or less complaint of rot and rust in potatoes, the crop will be fully up to the average. Digging is now in progress in many sections. Garden vegetables continue abundant. But tomatoes fail to ripen properly in many fields: warm, dry weather would help to improve this crop. In the southern states celery is nearly ready for market. Beans, onions, and vines are generally satisfactory.

Tobacco.—This crop is probably three-fourths harvested and in good condition. Correspondents at Leeds, Mass., state the crop is as good as ever grown in that vicinity. In the neighborhood of West Simsbury, Conn., the crop is best for three years. Harvesting, where still in progress, is favored by good weather.

J. W. SMITH,
Section Director, Boston, Mass.

AGRICULTURAL FAIRS

FOR 1898.

We shall be glad to receive information from secretaries relative to the dates of holding Fairs not included in the following list

MASSACHUSETTS.

Amesbury and Salisbury, Amesbury,	Sept. 27, 29
Brockton, Brockton	Oct. 5, 8
Berkshire, Pittsfield	Sept. 13, 15
Blackstone Valley, Uxbridge	" 27, 28
Bristol, Taunton	" 20, 22
Deerfield Valley, Charlemont	" 15, 16
Essex, Peabody	" 20, 22
Franklin, Greenfield	" 22, 23
Hampden East, Palmer	" 20, 21
Hampshire, Amherst	" 15, 16
Hampshire and Franklin, Northampton	Oct. 5, 6
Hillside, Cummington	" 27, 28
Hingham, Hingham	" 27, 28
Hoosac Valley, North Adams	" 21, 22
Housatonic, Great Barrington	" 28, 30
Martha's Vineyard, W. Tisbury	Sept. 20, 21
Middlesex North, Lowell	" 15, 17
Middlesex South, Framingham,	" 13, 15
Plymouth, Bridgewater	" 14, 16
Spencer, Spencer	" 22, 23
Union, Blandford	" 14, 16
Weymouth, South Weymouth	Sept. 29, Oct. 1
Worcester East, Clinton	" 15, 16
Worcester Northwest, Athol	" 14, 15
Worcester South, Sturbridge	" 15, 16
Worcester West, Barre	" 29, 30

MAINE.

Aroostook, Houlton	
Androscoggin Valley, Canton	Sept. 27, 29
Buxton and Hollis, Buxton	
Cumberland, Gorham	" 20, 22
Cumberland Farmers' Club, W. Cumberland	" 27, 28
Central Washington, Machias	" 20, 21
Durham, Agricultural, Durham	" 21, 22
Eden Agricultul, Salisbury Cove	Sept 21. 22
East Eddington Farmers' Club, East Eddington	" 21, 22
East Piscataquis, Milo	
East Somerset, Hartland	" 22, 24
Franklin, Farmington	" 30, 22
Hancock County Agricultual, Bluehill	Sept. 20, 22
Hancock County Fair Association, Ellsworth	
Kennebec County, Readfield	Sept. 13, 15
Lake View Park, East Sebago	" 20, 21
Lincoln County, Damariscotta	" 27, 29
Lee Union, Lee	
Maine State Pomological	
North Aroostook, Presque Isle	" 13, 15
Northern Cumberland, South Harrison	
New Gloucester and Danville, Upper Gloucester	" 28, 29
North Franklin, Phillips	" 13, 15
Northern Hancock, Amherst	
North Knox, Union	" 20, 22
Northern Oxford, Andover	" 21, 22
North Penobscot	
New Portland Agricultural, N. New Portland	" 21 22
North Waldo, Unity	" 21, 22
Orrington Agricultural,	
Pittston Agri. and Trotting Park Association, East Pittston.	
Penobscot, Hampden	
Riverside Park Assoc'n, Bethel	Sept. 13, 15
Richmond Farmers' Club, Richmond Corner	" 27
Ramshacke Park, W. Newfield.	
Southern Aroostook, Sherman Mills	
Sagadahoc, Topsham	Oct. 11, 13
Somerset, Madison Bridge	" 5, 6
Somerset Central,	
Shapleigh and Acton, Acton	" 5, 7
Springvale A. and M. Association, Springvale	
Sanford Trotting and Fair Association,	
West Oxford, Fryeburg	Sept. 27, 29
West Penobscot, Exeter	" 27, 29
West Piscataquis	
West Somerset	
Waldo County	
Waldo and Penobscot, Monroe	" 13, 15
West Waldo	
Washington County, Pembroke	" 14, 15
West Washington, Cherryfield	" 14, 15

NEW HAMPSHIRE.

Bradford & Newbury, Bradford	Sept. 27, 29
Rochester, Rochester	" 13, 16

VERMONT.

Rutland, Rutland	" 13, 15
Ryegate & Wells, South Ryegate	" 21, 22
Springfield, Springfield	" 13, 14
Valley Fair, Brattleboro	" 28, 29
Windsor, Woodstock	Sept. 28, 30
Winooski Valley, Waterbury	" 13, 15

CONNECTICUT.

Guilford, Guilford	Sept. 28
Newtown, Newtown	" 27, 29
Union, Enfield	" 29, 30
Union, Huntington	" 21, 22
Windham, Brooklyn	" 13, 15
Berlin, Berlin	Sept. 21
Branford, Branford	"
Chester, Chester	" 28
Danbury, Danbury	Oct. 3, 8
East Granby, East Granby	Oct.
Harwinton, Harwinton	Oct. 4
Killingworth, Killingworth	"
Meriden, Meriden	Sept.
Newtown, Newtown	" 27, 29
Rockville Fair Asso., Rockville	" 20, 22
Simsbury, Simsbury	Oct.
Stafford Springs, Stafford Springs	" 4, 6
Suffield, Suffield	Sept. 21, 22
Union (Monroe, etc.), Huntington	" 21, 22
Union (Somers, etc.), Enfield	" 28
Wallingford, Wallingford	" 29, 30
Willimantic Fair Association, Willimantic	" 27, 29
Winsted, Winsted	
Woodstock, South Woodstock	" 19, 21
Wolcott, Wolcott	Oct. 12

NEW YORK.

Albany, Altamont	Sept. 12, 15
Allegany, Angelica	" 13, 15
Brockport, Brockport	Sept. 28, Oct. 1
Brookfield, Brookfield	Sept. 19, 22
Butternut Valley, Morris	" 27, 29
Cape Vincent, Cape Vincent	Sept. 13, 16
Clinton, Plattsburg	" 13, 16
Cobleskill, Cobleskill	" 19, 22
Cohocton, Cohocton	" 13, 15
Cuba, Cuba	Sept. 13, 16
Dryden, Dryden	" 20, 22
Dundee, Dundee	" 28, 29
Erie, Hamburg	" 12, 16
Essex, Westport	" 19, 22
Franklin, Malone	" 27, 30
Genesee, Batavia	" 19, 22
Herkimer, Herkimer	Sept. 13, 15
Lewis, Lowville	" 13, 16
Naples, Naples	Sept. 27, 29
Niagara, Lockport	" 23, 24
Oneida, Rome	" 12, 16
Oneonta, Oneonta	" 12, 15
Ontario, Canandaigua	Sept. 20, 22
Orange, Middletown	" 13, 16
Orleans, Albion	" 22, 24
Oswego, Oswego Falls	" 13, 16
Otsego, Cooperstown	" 19, 21
Phœnix Union, West Phœnix	" 20, 22
Prattsburg, Prattsburg,	" 12, 14
Queens, Mineola	June 15, 16, Sept. 20 24
Red Hook, Red Hook	Sept. 14, 16
Rensselaer, Nassau	" 20, 23
Riverside, Greene	" 13, 16
Rockland, Orangeburg	" 12, 15
St. Lawrence, Canton	" 13, 16
Schenevus Valley, Schenevus	Sept. 15, 17
Schoharie, Schoharie	" 26, 29
Schuyler, Watkins	" 27, 30
Seneca, Waterloo	" 27, 29
Shavertown, Shavertown	" 13, 15
Silver Lake, Perry	" 28, 29
Steuben, Bath	" 27, 30
Suffolk, Riverhead	" 27, 20
Tioga, Owego	Sept. 13, 15
Tioga Northern, Newark Valley,	Aug. 30, Sept 1
Tompkins, Ithaca,	Sept. 6, 9
Union, Palmyra	" 22, 24
Union, Pottersville	" 28, 29
Union, Trumansburg	" 13, 15
Wayne, Lyons	" 15, 17
Westchester, White Plains	Sept. 26, Oct. 1
Western, Rochester	" 13, 17
Wyoming, Warsaw	" 13, 15
Yates, Penn Yan	" 20, 23

STATE AND GENERAL EXHIBITIONS.

British Columbia, New-Westminister	Oct. 4, 7
California, Sacramento	
Illinois, Springfield	Sept. 26, Oct. 1
Indiana, Indianapolis	" 12, 17
Kansas, Wichita	" 19, 24
Kansas City Horse Show	" 17, 24
Maryland, Timonium	Sept. 13, 17
Massachusetts Horticultural, Boston	Oct. 4, 5
Michigan, Grand Rapids	Sept. 26, 30
Mississippi, Vicksburg	Nov. 7, 12
Mississippi Exposition, Natchez	Oct. 24, 30
Nebraska Exposition, Omaha	June 1, Nov. 1
New Brunswick, St. John	Sept. 13, 23
New Jersey Inter-State, Trenton	" 26, 30
North Carolina, Raleigh	Oct. 24, 29
North Dakota, Mandan	Sept. 24, 30
Ontario Fat Stock, Brantford	Nov. 30, Dec 2
Prince Edward Island, Charlottetown	— — —
Quebec Provincial, Montreal	— — —
St. Louis, St. Louis	Oct. 3, 8
South Carolina, Columbia	Nov. 7, 11
South Dakota, Yankton	Sept. 26, 30
Spokane (Wash.) Fruit	Oct. 4, 15
Texas, Dallas	" 1, 16
Toronto Industrial	Aug. 29, Sept. 10
Washington, Tacoma	Sept. 26, Oct 1
Wisconsin, Milwaukee	" 19, 3

P. E. I. Weather, Crops, Markets, Etc.

Weather here for the last two weeks fine and clear and splendid weather for harvesting. Farmers are in the midst of the harvest. The wheat crop on the Island is completely ruined with rust and the depredations of the Hessian fly. The crop, a month ago, promised to be excellent, but now it will not average more than a quarter of an average crop—a terrible calamity to have befallen our farmers. The oat crop, too, is rusted in many places, and the potato crop over which our farmers were jubilent a few weeks ago, is now, the tops, turning black. Barley, fruit and turnips are a good crop. The fruit crop is better than for years. Roots, particularly turnips, are grown here largely. They take the place of ensilage to a large extent for all kinds of stock. The corn plant is not a success on the Island, though there are quite a number of silos. This year has been so wet and cool, the corn crop is a positive failure. Cheese is king in the Province, and this is a great year for cheese, and dairying in general. The pastures never dried up or parched, owing to the prolonged humidity, and, as might be expected, the flow of milk was unusually large and so continues. Cheese has raised in price lately, and is now eight and one-half cents. Bacon production has reached large proportions in Prince Edward Island. There is established, at Charlottetown, the largest bacon curing plant east of Chicago. The large establishment is running the whole year, turning out Wiltshire bacon, mostly for the British market. Our farmers have made great improvements in their swine lately, conformable to the demands of the modern market.—J. A. M.

Days in the Arctic.

Life in the Arctic is a serious matter, and one not to be lightly undertaken. Never to sleep in a bed for three years, or even in a bunk—such as our prisoners enjoy—is merely a bagatelle, as the floor and a reindeer-skin made a capital substitute. Looking back on the experience of a thousand days spent in the most northerly inhabited hut in the world—for our quarters were on the 80 degrees north latitude—I certainly think our greatest enemies were perpetual darkness and want of companionship.

For six men to be boxed up three years in a hut twenty feet long by twenty feet wide, and only seven feet high, never seeing any other being nor hearing a scrap of news, is a trying existence, yet I can unhesitatingly say, no happier little party ever lived in Northern latitudes. Four months of solid night every year has, however, a depressing effect, not only on the spirits, but on the appetite, and it also destroys sleep. Morning, noon, and night becomes unrecognizable, merged into one endless gloom, and but for the welcome advent of the moon once a month, when the sky was sufficiently clear for us to enjoy her rays, we lived in a blackness the dreariness of which is indescribable.

As the schoolboy counts the days to the holidays, so we counted the hours till the return of the sun, and even as the first rays became visible our spirits rose, and existence altogether wore a different complexion. Then exercise became enjoyable, instead of that dreary daily trudge round a given circle in the dark; with the return of the light we felt new life and energy. And yet the climate of Frans-Josef Land, even in spring, would not suit all tastes; for example, out of fifty day's sledging, ending in May, 1897, Mr. Albert Armitage and I enjoyed only thirteen and a half tolerably clear days! Driving snow, wind, and bitter cold were general; for, be it understood, in all these three years the thermometer never rose higher than eleven degrees above freezing point, and seventy to eighty degrees below that point was quite common.

They say eels get used to skinning—well, we may have fairly got used to wind, mist, and snow—but we hardly liked it!—From "Days in the Arctic," by Frederick G. Jackson, in Harper's Magazine for September.

BITS OF FUN.

The Hamilton (Ont.) Spectator traces the evolution of the Czar's peace proposition in the following dialogue: The Czar—"I will built two big battleships." John Bull: "I will build four." The Czar: "I will build eight." John Bull: "I will build sixteen." The Czar: "Let us have peace!"

"I've had a delightful time on my holidays. No regular hours for meals. A large, airy room. No charge for hot and cold baths. All kinds of fruit and vegetables. A well stocked wine cellar and no charge for corckage, and above all, no fees for the servants." "Delicious! Where is this ideal spot?" "I stayed at home."—Tit-Bits.

"Did your son get home safe from Cuba?" asked the neighbor. "He did better than that," was the answer, "he got home safe from camp."—Washington Star.

He: "What is this dear?" She: "Poundcake. "Isn't it rather small for its weight?"—Indianapolis Journal.

"George," she said in a nervous whisper, "you must give me time—you must give me time." "How long he hoarsely asked, "a day, a week, a month, a year?" "No—no, George," and quickly scanned the sky; "only until the moon gets behind a cloud."—Roxbury Gazette.

"They say that Mrs. Bondly throws on a great deal of agony since they became suddenly rich." "Well, rather. That woman used to walk in her sleep. Now she gets up and rides a chainless bicycle or orders a carriage."—Detroit Free Press.